The Association of Special Libraries and Information Bureaux

Report of Proceedings

of the

THIRTEENTH CONFERENCE

held at

Balliol College, Oxford

SEPTEMBER 18th to 21st, 1936

THE OBJECTS OF THE ASSOCIATION ARE: To examine, foster, and co-ordinate the activities of special libraries, information bureaux, and similar services; to act as a clearing-house for these services; to develop the usefulness and efficiency of special libraries and information bureaux under whatever titles they may function; and generally to promote, whether by conferences, meetings, or other means, the wider dissemination and the systematic use of published information.

The Association aims at assisting members who desire information of any kind to get into touch with the appropriate library or other body specialising on the subject; it does not itself attempt to build up any centralised organisation to provide the detailed information direct.

PUBLISHED BY THE ASSOCIATION OF SPECIAL LIBRARIES
AND INFORMATION BUREAUX
31, MUSEUM STREET, LONDON, W.C.1

1936

PRICE 5/-

UNIVERSITY COLLEGE LONDON

The Association of Special Libraries and Information Bureaux

31, MUSEUM STREET, LONDON, W.C.1.

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Association of Scientific Workers.

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Agricultural Economics Research Institute.

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Research and Development Dept., Mond Nickel Company, Limited.

J. G. Pearce, M.Sc., F.Inst.P., M.I.E.E.
British Cast Iron Research Association.

C. A. Spencer, M.Sc.
Department of Scientific and Industrial Research.

General Secretary: Miss E. M. R. Ditmas, M.A.

List of Visitors to the Thirteenth Conference.

1	Thomas Adams, F.R.I.B.A., F.S.I.	Vice-President, Institute of Landscape Architects.
2	H. F. Alexander, M.A.	Radcliffe Science Library, Oxford.
3	Miss Ellinor Archer, M.Sc.	Commonwealth Council for Scientific & Industrial Research, Australia.
4	Wilfred Ashworth, B.Sc.	National Smelting Company, Ltd.
5	Miss T. M. Baird.	Association of Special Libraries & Information Bureaux.
6	C. E. A. Bedwell, F.L.A.	Society of Comparative Legislation.
7	Miss O. B. Bertie.	Agricultural Economics Research Institute.
8	Theodore Besterman.	
9	Miss A. F. C. Bourdillon.	Barnett House, Oxford.
10	Dr. S C. Bradford.	The Science Library.
11	Mrs. S. C. Bradford.	
12	R. Brightman, M.Sc.	I.C.I. (Dyestuffs Group), Ltd.
13	Professor A. M. Carr Saunders.	Liverpool University.
14	H. E. Caustin.	Institute of Statistics.
15	Miss E. Cherkesi.	Central Electricity Board.
16	W. L. Cooper, M.A.	Bristol University.
17	S. Monckton Copeman, M.D., F.R.S., F.R.C.P.	British Medical Association.
18	William G. Corp.	National Book Council.
19	Dr. H. E. E. Craster.	Bodleian Library, Oxford.
20	Frank W. Crews, B.A., A.I.S.A.	Institute of Transport.
21	E. Salter Davies, C.B.E., M.A.	Kent Education Committee.
22	Miss B. M. Dent, M.Sc.	Metropolitan-Vickers Electrical Co., Ltd.
23	Miss E. M. R. Ditmas, M.A.	Association of Special Libraries & Information Bureaux.
24	S. P. Dobbs.	Cadbury Bros., Ltd.
25	Miss V. G. Douie.	London & National Society for Women's Service.
26	Miss Kathleen M. Dowding.	Chiswick Products, Ltd.
27	J. J. Eaton.	*The Yorkshire Post.*
28	Harry Farr.	Cardiff Public Libraries.
29	Mrs. Harry Farr.	
30	G. Ellis Flack, M.A.	University College, Nottingham.
31	Mrs. G. Ellis Flack.	
32	Miss E. M. Forcey.	Transport and General Workers' Union.
33	B. Fullman, B.Sc., A.I.C.	British Non-Ferrous Metals Research Association.
34	S. W. Gibson.	British Thomson-Houston Co., Ltd.
35	Miss Mizpah Gilbert, F.L.A.	Brentford & Chiswick Public Libraries and Museums.
36	Miss M. Gosset, A.R.C.S., B.Sc.	The Science Library.
37	John Grierson.	G.P.O. Film Unit.
38	Sir Richard Gregory, Bart., D.Sc., F.R.S.	
39	Lady Gregory.	
40	S. P. Grundy.	
41	Miss G. Guiney.	Imperial Forestry Institute.
42	J. G. Hall, F.L.A.	Coventry Public Libraries.
43	Richard Haxby, F.L.A.	Commercial & Technical Library, Leeds.
44	B. M. Headicar, F.L.A.	
*45	L. E. Helbig.	Luxfer, Ltd.
46	F. Henn.	Imperial Institute.
47	F. A. Hoare.	Western Electric Company, Ltd.

*48	G. C. Holliday, B.A.	Gas Light & Coke Company.
49	J. Edwin Holmstrom, B.Sc., Ph.D., Ass.M.Inst.C.E.	
*50	H. V. Horton, B.Sc., A.I.C.	Royal Photographic Society.
51	Miss D. W. Hughes.	Career Advisory Bureau.
*52	Captain C. W. Hume.	University of London Animal Welfare Society.
53	Professor R. S. Hutton, D.Sc., M.A.	Cambridge University.
54	G. Pratt Insh, M.A., D.Litt.	Educational Institute of Scotland.
55	H. A. Izant.	Co-operative Reference Library.
56	H. L. Jackson.	H. K. Lewis & Co., Ltd.
57	Miss R. W. James, B.A.	Agricultural Economics Research Institute.
58	H. H. Johnson, M.I.Mech.E., M.I.E.E.	*Engineering,* Ltd.
59	Mrs. H. H. Johnson.	
60	Councillor Mary L. Kingsmill Jones, O.B.E., J.P.	Manchester Public Libraries.
61	Stephen K. Jones, B.A., F.L.A.	Dr. Williams' Library.
62	B. K. Kelly, B.A.	Distillers' Company, Ltd.
63	Miss Joan B. Kennedy.	British Electrical Development Association.
64	Miss D. Knight, B.A., F.L.A.	National Institute for Research in Dairying.
65	Miss C. M. Lander, A.I.C.	Institution of Gas Engineers.
66	J. H. Lascelles, B.A.	British Iron and Steel Federation.
67	Mrs. F. Lennox.	
68	Miss W. Lewis, B.Sc.	British Aluminium Company, Ltd.
69	Guy Locock, C.M.G.	Federation of British Industries.
70	Dr. E. E. Lowe.	Leicester Public Libraries.
71	John McAdam, F. L. A.	Warrington Municipal Library.
72	E. R. McColvin, M.L.A.	The Polytechnic.
73	Miss M. McEwan.	College of Nursing.
74	Miss F. McKechnie, M.Sc.	British Xylonite Company.
75	A. C. Mann.	Callenders Cable & Construction Co., Ltd.
76	Dr. Marschak.	Institute of Statistics.
77	Miss Granville Meixell.	Special Libraries Association of America.
*78	Lt.-Col. J. M. Mitchell, C.B.E., M.C., M.A., LL.D.	Carnegie United Kingdom Trust.
*79	Councillor A. Moss.	Manchester Public Libraries.
80	R. H. New.	Clarendon Press.
*81	Col. Luxmoore Newcombe, T.D., M.A., F.L.A.	National Central Library.
82	E. R. L. North.	Croydon Public Libraries.
83	Dr. Cyril Norwood.	
84	Charles Nowell, F.L.A.	Manchester Public Libraries.
85	L. T. Oldaker.	Birmingham University Research Committee.
86	C. S. Orwin.	Agricultural Economics Research Institute.
87	Mrs. C. S. Orwin.	
88	Miss A. K. Osborne.	Brown-Firth Research Laboratories.
89	Miss E. W. Parker.	Research & Development Department, Mond Nickel Company.
90	Miss M. Pears, A.L.A.	British Commercial Gas Association.
91	Miss Dorothy P. Powell, M.A., F.L.A.	Southampton University College.
92	A. Granville Prior, B.A.	National Union of Teachers.
93	H. H. Richardson.	Board of Trade Library.
94	Arthur F. Ridley, F.L.A.	British Non-Ferrous Metals Research Association.
95	Mrs. A. F. Ridley.	
96	F. A. Ring.	National Union of Teachers.
*97	David E. Roberts.	
98	Miss B. Robertson.	Research Library, Kodak, Ltd.
99	Councillor A. Sandison, O.B.E., M.D., B.Sc.	Croydon Public Libraries.
100	Ernest A. Savage, F.L.A.	Edinburgh Public Libraries.
101	W. C. Berwick Sayers, F.L.A.	Croydon Public Libraries.

102	Lt.-Col. N. G. Scorgie, C.B.E., M.V.O., M.A.	His Majesty's Stationery Office.
103	Major E. L. Sellars, M.C., M.Sc.	I.C.I. (Alkali), Ltd.
104	D. Shapland.	Sheffield Public Library.
105	Miss M. Shaw, B.Sc.	J. Lyons & Co., Ltd.
106	Eric N. Simons.	Edgar Allen & Co., Ltd.
107	Mrs. E. N. Simons.	
108	Councillor R. Simpkins.	Leicester Public Libraries.
109	Miss E. M. Smelt, B.Pharm.	Pharmaceutical Society.
110	Alderman Charles Squire.	Leicester Public Libraries.
111	Miss Elizabeth Stockton.	British Iron and Steel Federation.
112	Miss M. C. Stanley-Smith, F.L.A.	Oxfordshire County Library.
113	Stewart Swift, M.R.San.I.	Public Health Department, Oxford.
114	Miss Lilian Taylor.	J. Walter Thompson Co., Ltd.
115	D. L. R. Thomas.	Toc H, Oxford.
116	Miss L. G. Thomerson, B.Sc.	Printing & Allied Trades Research Association.
117	Miss Edith Thornton.	American Library Association.
118	Miss Barbara E. Urmson.	Midland Counties Association for the Blind.
119	Councillor Mrs. Westcott.	Manchester Public Libraries.
120	Leonard C. Wharton, M.A., F.L.A.	
121	D. H. Willson.	Royal College of Veterinary Surgeons.
122	G. R. Woodward, A.L.A.	British Cast Iron Research Association.
123	Reginald W. M. Wright, F.R.S.A.	Victoria Art Gallery & Municipal Library, Bath.
124	C. H. Beale.	Spicer Dufay (British), Ltd.
125	Miss E. M. Dimes, B.A.	National Smelting Co., Ltd.
126	W. J. Gallagher, M.A.	Research Association of British Rubber Manufacturers.
127	Miss M. C. Hawkins.	Oxfordshire County Library.
128	Miss M. I. Henderson, M.A.	University College, Southampton.
129	Henry J. Jones.	The Northern Polytechnic.
130	Miss D. Fuller Neary.	The Gas Light and Coke Co.
131	Denis Payne.	Bowes & Bowes, Cambridge.
132	B. D. Porritt, M.Sc., F.I.C.	Research Association of British Rubber Manufacturers.
133	J. H. Pafford, M.A., F.L.A.	National Central Library.
134	H. Rogers.	Research Association of British Rubber Manufacturers.

* Unavoidably prevented from attending.

Editorial Note.

THE papers that follow constitute a record of the proceedings of the Thirteenth Conference of the Association. Written papers were, as a rule, prepared in advance by the speakers, and these have been reprinted in full. No verbatim reports of the discussions were made, but, with the aid of notes taken by the Stewards of the meetings and provided by the various contributors to the discussions, as full a report has been printed as the limitations of space permit. The editors take this opportunity to acknowledge their indebtedness to all those members of the Conference who have sent in notes of their contributions.

An index of the contents of the Report is printed at the end. Copies of the Reports of the twelve previous Conferences are still available, and the fifth Report contains an index to the first five.

These Reports are indexed in the Industrial Arts Index of The H. W. Wilson Company, of New York.

31, Museum Street,
London, W.C.1.

KEY TO PHOTOGRAPH OF VISITORS ATTENDING THIRTEENTH CONFERENCE

BALLIOL COLLEGE, OXFORD, SEPTEMBER 19TH, 1936

(Reference should be made to the corresponding numbers given in the list of visitors to the Conference)

KEY TO PHOTOGRAPH OF AUTHORS ATTENDING THIRTEENTH CONFERENCE

BALLIOL COLLEGE, OXFORD, SEPTEMBER 19TH, 1958

(Readers are invited to identify as many as possible of the contributing authors. Those in the rear will be grateful to the Conference)

NORMAN TAYLOR

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Nederlandsch Instituut voor Documentatie en Registratuur.

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Reception and Opening Session.

Delegates were received before dinner by Sir Richard Gregory, Past-President of the Association, by Dr. Cyril Norwood, President-Elect, and by the Council.

The Aims and Objects of ASLIB : After dinner a short address was given by the Chairman of the Council, Mr. Arthur F. Ridley, for the benefit of non-members present at the meeting and of those members of the Association who were attending a Conference for the first time. He emphasised the extraordinary diversity of interests represented by the membership, which included Learned Societies and Research Associations, Professional and Trade Associations, Industrial and Commercial Firms, Public Libraries, University and other educational organisations, some Government Departments, a Press and Publishing Group, and many additional and varied interests represented by Societies or individuals. Clearly, then, ASLIB was not a professional association of librarians, although many libraries and information officers were associated with it. It was an Association mainly of information users and was made up of those who, for a variety of reasons, sought to promote a systematic utilisation of informational and library services of all kinds. Their common aim was the best, most intelligent and efficient use of information. For this reason ASLIB had become in this country the point of centralisation, the clearing-house for special library and information services.

This was the Thirteenth Annual Conference, and a rich harvest had been reaped from the seed sown in 1924. In addition to all the good work which had been undertaken by successive conferences so many important proposals were mentioned at the first gathering that even now some are still undigested and unconsidered. It would be difficult to pick out from many useful works ASLIB has undertaken in the co-operative spirit any of greater significance than others, but one might mention the *ASLIB Directory* of sources of specialist information in Great Britain, compiled and published with generous financial assistance from the Carnegie United Kingdom Trustees and, even eight years after publication, still selling regularly. The only obstacles to a new edition were the costs of revision and production. The necessary up-to-date information was largely available already.

The most recent new work, of which ASLIB was justifiably proud, was the *ASLIB Book List,* a quarterly publication giving particulars of selected worth-while technical and scientific books in English, graded according to their suitability for the general public, for students, or for research workers, and so on. The list was regularly compiled on the recommendations of more than seventy experts in the various subjects covered, and should prove a most valuable aid to general libraries which desire to have really well-chosen stocks on scientific subjects, and also to specialist libraries interested in getting the most reliable material on subjects outside their immediate field of interest.

ASLIB has an Enquiry Bureau which endeavours to put members into touch with others who can provide specialist information, and there were many other useful services which had been built up.

Mr. Ridley went on to say that except in its early years ASLIB has enjoyed no subsidy from outside bodies, and has managed to remain self-supporting, but it was now true that a number of important projects were held up for lack of additional funds, which could only be secured by extension of membership or sympathetic financial aid. At the same time members might congratulate themselves on the value they receive for their subscriptions, which in practically no case exceed two guineas. In the previous year, for example, the accounts showed that, owing to prudent arrangements by the Council with regard to publications and conferences, the expenditure the Council were able to make in carrying out the Association's work was about £3 10*s.* 0*d.* per member.

The meeting endorsed Mr. Ridley's welcome to Miss Granville Meixell and Miss Edith Thornton, official representatives of the Special Libraries Association of America and of the American Library Association respectively. In closing, Mr. Ridley expressed the thanks of the whole Association to the Chairman of the session, Sir Richard Gregory, for his inspiring leadership and most helpful guidance as President during the preceding two years.

Sir Richard Gregory then introduced the President-Elect, Dr. Cyril Norwood, who took as the subject of his address "The Library in the School."* After the presidential address, a vote of thanks to the speaker was moved by Mr. F. A. Hoare.

* Printed in full on p. 18.

The Year's Work of ASLIB, 1935-36

A Brief Survey.

The Twelfth Annual Conference was held at St. John's College, Cambridge, from 20th to 23rd September, 1935. The Conference was well attended and discussion on the papers was lively. An attractive feature of the week-end was the visit to the new Cambridge University Library under the able guidance of Mr. H. C. Stanford and Mr. E. Ansell.

In March this year ASLIB moved to larger premises in Museum Street, London, W.C.1. This change of address had become imperative through the increase in the Association's work and the consequent overcrowding at the small office in Russell Square. The Council are glad to be able to report that the new premises are proving satisfactory in every way for the purpose of the Association's present work, and it is hoped will permit of the expansion in staff which it should be the next aim of the Association to secure, in order that the growing programme of work may be dealt with effectively.

Outside the ordinary routine work of ASLIB, the chief activity during the year centred round the launching of the *ASLIB Book List* as a quarterly publication, free to full members of ASLIB but on sale to non-member subscribers at 10*s*. 6*d*. per annum. A more detailed account of this enterprise will be found on p. 14.

The Council is gratified to be able to report that Dr. Cyril Norwood, President of St. John's College, Oxford, has consented to accept nomination as President for the forthcoming year and will attend the Conference at Balliol College, Oxford.

The Association's Council and Committees.

The first meeting of the new Council, elected at the last Annual General Meeting, was held on November 8th, 1935, when Mr. Arthur F. Ridley was elected to the Chair and Mr. H. H. Johnson was elected as Vice-Chairman. Professor R. S. Hutton, the retiring Chairman, had given close and most valuable attention to the affairs of ASLIB during five of the most critical years of its existence, and it was with real reluctance and regret that the Council agreed to his desire not to stand for re-election. The Association is, however, fortunate in that Professor Hutton maintains a close and constant interest in the work of the Council and many of the Committees. His successor, Mr. A. F. Ridley, is Secretary of the British Non-Ferrous Metals Research Association, and has been closely connected with ASLIB ever since its inauguration in 1924.

During the year seven meetings of the Council were held. A full list of the personnel of the Council will be found on p. 4. Four new members were elected at the Annual General Meeting in September 1935, and their valuable co-operation has been much appreciated. They were : Mr. B. C. Curling, Mr. Alexander Farquharson, Dr. E. E. Lowe, and Miss E. W. Parker.

The Council appointed a Committee consisting of Dr. S. C. Bradford, Mr. R. Brightman, Miss B. M. Dent, Mr. J. J. Eaton, Mr. B. M. Headicar, Professor R. S. Hutton, Mr. J. G. Pearce, Miss E. W. Parker, Mrs. C. S. Orwin, and the Honorary Officers to make arrangements for the 1936 Conference. This Committee has held a number of meetings and, subject to the Council's rulings, has had the onerous but pleasurable task of assembling the programme of the 1936 Conference.

Finance and Membership.

The audited Annual Accounts for the year ended June 30th, 1936, have been circulated to all members and will come before the Annual General Meeting for consideration.

The year ended with a balance in hand of £39, compared with £55 last year. For the third successive year there was a small excess of income over expenditure, and this is encouraging in view of the additional expenses entailed by the removal to new premises. The improved turnover and the increase in receipts under the headings of Subscriptions and Sales of Publications are healthy signs, but every forward movement on the part of ASLIB brings to light new fields of enterprise which could rightly and profitably be explored and cultivated were it not for the limitations imposed by meagre financial resources, which make such developments at present impossible. One such undertaking urgently needed is a new edition of the *ASLIB Directory*.

The number of members on June 30th, 1936, stood at 305, not including 148 non-member subscribers to the *ASLIB Book List*. The Council are anxious to see a far greater increase in membership since the major part of the income of the Association depends upon this source. (Members are invited to consider the comparable position of the American *Special Libraries Association* which, by enthusiastic team-work among the rank and file of its membership, has increased its membership roll to 1,776 individuals and institutions, etc.)

The "ASLIB Book List."

(Quarterly recommendations of recently published scientific and technical books.)

The organisation and sale of the *ASLIB Book List* continue to form a considerable part of the Association's activities. Time thus spent, however, is not time wasted and there is little doubt that the sale of the *Book List* to non-member subscribers, a large proportion of whom live overseas, forms a most valuable medium of propaganda. Each *Book List* carries, on the inside of the cover, a summary of the Association's aims and a short list of ASLIB publications, and it is definitely known that several of ASLIB's new members are directly attributable to it.

The Council appointed the following to act as an Editing Committee for the *Book List*: Dr. S. C. Bradford, Mr. B. C. Curling, Miss B. M. Dent, Miss Mizpah Gilbert, Professor R. S. Hutton, Dr. E. E. Lowe, Mr. A. F. Ridley, Mr. J. D. Stewart, and Mr. J. E. Walker. Recommendations of books are now received from seventy-seven voluntary collaborators, to whose most generous help the success of the *List*

is largely due. A policy of gradual expansion of the range of subjects included in the *List* is being pursued, and it is hoped that it will eventually cover the whole field of science and technology, except purely medical books, with which it is not proposed to deal.

The number of non-member subscribers to the *Book List* is now 151, but it is hoped that this number will be considerably increased as systematic publicity to potential users of the *List* is continued.

The ASLIB Enquiry Bureau.

During the last twelve months there was a substantial increase in the number of enquiries handled by the Bureau. The questions asked continue to be amazingly diverse. The enquiry is usually for books or published sources of information, but the topics differ widely and the following are some examples selected from those received within the last six months: Chinese carvings, coal hydrogenation, epidiascopes, steel sheet piling, treatment and Government regulations concerning draught cattle, colour-cinematography, Euthanasia, and Faraday MSS. There has also been the usual volume of enquiry concerning the address and cost of technical publications. We are also glad to record that several of our overseas members have sent their representatives to call on ASLIB when in London, in order to discuss the Association's work generally and also such questions as which special libraries are likely to be most interesting for them to visit for their specialist requirements.

It should be noted that the larger premises at Museum Street now make it possible for members to have access to those periodicals, including the publications of the American Special Libraries Association, which it receives. A central index of information on matters arising out of enquiries or contained in publications received at the office, classified according to the Universal Decimal Classification, is in process of formation, but progress on it is necessarily slow and can receive only secondary attention with the present small staff.

The Panel of Expert Translators.

There has been some increase in the use of the Panel of Expert Translators. As a result of the Round Table Meeting on the subject held at the Twelfth Annual Conference, a sub-Committee was appointed to investigate the working of the Panel and the qualifications of the Translators at present registered. The following consented to serve: Mr. R. Brightman, Mr. B. Fullman, Mr. C. H. Gray, and Miss E. W. Parker. Miss Parker and Mr. Fullman were deputed by the sub-Committee to make a careful examination of the qualifications of the individual translators as disclosed by the details given by them at the time of their registration and an interim report was presented to the Council. The sub-Committee, emphasises, however, that still further investigation (now in hand) is needed and that until that has been completed it would be premature to start a discussion on the possible re-organisation of the Panel. The possibility of extending the usefulness of the Panel by co-operation with other specialist organisations is being explored.

"ASLIB Directory" and other Publications.

Somewhat surprisingly, in view of the date of its publication, the

sales of the *ASLIB Directory* continue at a moderate level, nineteen copies having been sold this year. Nevertheless, it is evident that serious consideration must be given to the possibility of publishing a second edition. There is very little doubt that it would have a good sale, provided that some means could be found of covering the initial costs of publication and the salary of the additional member of staff who would be needed to deal with the thorough revision of the existing *Directory*.

The sales of the Conference Report to non-members have more than doubled within the last twelve months, and a number of requests for complete sets have been received from libraries abroad. There is also a fairly steady demand for copies of reprints of special papers.

"ASLIB Information."

Nothing new can be reported of this periodical, which continues its function in promoting an interchange of information amongst the members of the Association. In this connection the Secretary would always be glad to hear from any member of any innovation in the organisation of information services which could be reported as a matter of general interest. Grateful thanks are due to all those who have kindly contributed articles to the Bulletin.

ASLIB and Classification.

The publication of the English edition of the Universal Decimal Classification is in hand, and the first part, including the General Introduction and Class O, is now obtainable at 3*s*. 6*d*. The English agents are Messrs. Simpkin, Marshall, Ltd. This edition, which is based on the latest French and German editions, is being published under the auspices of the Joint Committee of ASLIB and the British Society for International Bibliography, on which ASLIB is represented by Mr. A. F. Ridley, Mr. H. H. Johnson, and the Secretary.

Report of the Lancashire and Cheshire Branch of ASLIB.

Miss B. M. Dent, Hon. Secretary of the Lancashire and Cheshire Branch of ASLIB, sends the following report:

Four years ago a union list of scientific, technical, and commercial periodicals taken by certain local ASLIB members was compiled and kept by the Secretary in the form of a card index. This list has now been brought up to date, checked, duplicated, and issued to members. The number of items in the list is about eight hundred and the number of contributing libraries nine, the contents of libraries included in the *World List of Scientific Periodicals* having been omitted.

London and Home Counties Branch of ASLIB.

Mr. H. H. Johnson, M.I.Mech.E., M.I.E.E., of *Engineering*, Ltd., was re-elected Chairman of the Branch, and Miss M. Pears, A.L.A., of the British Commercial Gas Association, kindly consented to act as Hon. Secretary in place of Miss Evelyn Atkinson who retired on her marriage.

On December 16th, 1935, through the courtesy of Mr. F. A. Hoare, Hon. Secretary of ASLIB, and the Directors of the Western Electric Company, Ltd., the members of the Branch had an opportunity of seeing a display of educational and documentary films at the private theatre of the Western Electric Company at Bush House. The meeting was well attended and much appreciated.

Certain other meetings that had been planned were postponed on account of the death of his late Majesty, King George. The temporary disturbance caused by the removal of the ASLIB offices into larger premises in March further complicated matters, and it was finally decided not to attempt any further meetings of the Branch during that session. Nevertheless, negotiations were begun for a joint meeting with the Library Association for the discussion of the proposals for the closer relation between industry and the Public Libraries made by Miss E. W. Parker at the Twelfth Conference, and, as reported in the September issue of *ASLIB Information,* a meeting has been arranged to take place at the Royal Institute of British Architects on October 21st. Thus the London and Home Counties Branch should begin the new session with a meeting of very real interest to all members.

At the close of this summary of the year's work, the Council wishes to express its sincere thanks to Sir Richard Gregory, who retires after serving as President of the Association for the last two years. His support and encouragement have been of the utmost value and have been greatly appreciated by the Council and membership.

A. F. Ridley, *Chairman of Council.*
F. A. Hoare, *Hon. Secretary.*
E. M. R. Ditmas, *General Secretary.*

The Library in the School.

By Dr. CYRIL NORWOOD.

You have paid me a great compliment in asking me to deliver this address, but you have placed me in a difficult position, for I have to stand here as an amateur addressing professionals, and to ask for your indulgence. Plato in the Republic drew a sharp distinction between opinion and knowledge, to the great disadvantage of the former, and it makes me feel correspondingly modest that I have only general opinions to offer. But I take it that your interests would be served if it were one of the results of our educational courses that boys and girls left school with an instinct to use libraries, and with the faculty of using them intelligently, and it is from this angle that I shall try to direct the relevance of the few remarks that I have to offer.

My own school days lie far back in the last years of the nineteenth century, and so do my undergraduate days. In my course through that school (and a very successful school it was), I do not remember a single form library. When we reached the exalted region of the Head Form, I remember a couple of large cupboards, called the Head Form Press, mainly consisting of obsolete editions of Greek and Latin authors. No one took a book out, and the addition of a new book was an event of very special interest: I remember only one such event in four years, the purchase on a school journey to the British Museum of Aristotle's newly discovered Athenian Constitution. The Library, however, contained a large folio Seneca, bound in vellum and interleaved, in which in various languages we used to compose libels, satires, and pasquinades on various members of the staff, and in commemoration of such school events as caught our fancy. There was, however, a fine school library in which the Head Master sat and held confirmation classes. It was never by any chance entered by a boy for the purpose of reading, or taking out a book, and I remember what a thrill it was when in my last year Francis Storr took me there, and lent me the third volume of Ruskin's Modern Painters, and how proud I was that I had, what so far as I know was, the unique privilege of taking a book out of the library itself and reading it.

When I came up to St. John's I never had the chance of entering the Library at all, but when I was a B.A. I had the pleasure of being examined in it. There was a general idea, quite contentedly accepted, that the Library belonged to the dons. There was an inadequate J.C.R. Library, and my tutors lent me books. There was also the Library at the Union. I cannot remember that anyone suggested to me that Oxford contained further treasures, and the Bodleian remained sacred and untrodden ground. If, then, I may generalise from a particular experience, I cannot hold that the education of the 'nineties was likely to produce any instinctive desire for a Library, and still less any trained ability to make use of it.

There has been a great increase in our days in the numbers who attempt the full range of secondary education and who go on to the

University course, and the whole process is of necessity dominated by the system of examinations. There is a considerable danger that arises quite naturally from this, the danger, namely, of producing a numerous and half-educated intellectual proletariat who think that knowledge consists in cramming a textbook and writing answers on its subject-matter, and that, when this process has been satisfactorily tested, all is complete and the pursuit of knowledge is over. There are those to-day who write B.A. after their names who have never read a big book or a real classic, but who know from textbooks the sort of thing which it is appropriate to write about the great works of genius. Now I am inclined to think that a man is not well educated until he has read big books and mastered them, and until he knows what it is to consult authorities, and to collate the result and use them. And, therefore, I hold that a man is better educated if he knows how to use a library than if he has obtained a Higher Certificate, or even a B.A. Hence our subject, "The Right Use of Libraries," is of vital concern to the real work of education.

The particular question which I want to consider is the question of what can be done at school, and I have little doubt, first, that better and more intelligent use of libraries is to be met with at schools to-day than was the case forty years ago, and second, that there is still plenty of improvement to be made. For I am bold enough to suggest that there are still schools which possess libraries and do not make full or proper use of them; still schools which have no libraries and feel that they get on very well without them. The objects of a school library are manifold. I remember when I was a young man hearing them stated by Mr. Dunn, then Head Master of Bath College, a great man in his day and a pioneer, whom his own pupils will never forget. He held the objects of a school library to be five: The first is to help in the work of the classroom, for a school should be practical, and books are indispensable tools for the processes of learning and teaching. The second is to encourage initiative and the habit, or at any rate the occasional occurrence, of voluntary study. There are those who think that a school is successful when it receives pupils accustomed and expecting to be taught and sends them out accustomed and expecting to teach themselves. I remember a time when Board of Education Inspectors wrinkled their noses when they observed in the school time-table periods when the Sixth Form had nobody to teach them, and made observations about the desirability of more adequate instruction at the top of the school. And now I see that they are preaching another gospel, and if they do not see such free periods they proceed to make observations about the desirability of teaching the more advanced students how to direct and use their own time, and of providing opportunity for them to do so. The old schoolmaster is well aware that there lurk dangers under either course: educational good is always liable to be corrupted.

The third object of the school library is to develop individual taste in matters which of necessity lie outside the range of classroom instruction. It is not only that the library should provide instruction and guidance for common hobbies; you never know what odd interests will turn up. I have known a boy in his early teens warmly interested in the coinage of the later Roman Empire, another who specialised in Infusoria, another who was almost an authority on

ancient ships and how they were sailed, another whose concern was bird migration. You never know, and the only course is to turn them loose in the library.

Then, fourthly, it should be an object to provide information about matters of social, political, and intellectual moment. It is certain that one of the aims of a school should be to train for citizenship and that there should be a great deal of instruction in the classroom which should point on for its completion to the library. It should contain the appropriate books, and some of the more serious magazines. The *Daily Herald* and the *Morning Post* are stimulating, but they are not enough. *Science Siftings* is not quite adequate. There should be deeper ground for the boys to dig in, to repay them with a more durable crop.

Fifthly and finally, the object of the school library should be to provide recreation and to inspire a love of reading. There is a danger of intellectual priggishness in teaching that the library should always be a place of conscious mental improvement, and so driving away from it the normal unregenerate boy. It is a good thing at school to encourage the habit of reading, and there is much to be learned without knowing it from novels and adventure stories and even detective stories. I am ready to be tolerant about this side of a school library's work, for once you get the habit of reading, many unexpected developments are apt to follow. I remember with humility that there are still produced in not inconsiderable numbers boys who, if they cannot knock a ball about under cover or in the open, are at a completely loose end.

These, then, are the objects of a school library as I learned them in the 'nineties, and I have no doubt that they were being practised at Bath College in the 'eighties of the last century. I mention this because we have now so many new fellowships and societies devoted to the improvement of education, to which I wish nothing but good, but which in nearly all cases seem to suffer from the impression that no one before the war thought of education as anything other than a process by which wisdom (i.e. Latin and Greek) with a twig is driven in behind. Yet in these objects of a school library, which are not of my own invention, but which were both formulated and practised fifty years ago, you will find individuality, freedom, the importance of self-development, the importance of training for citizenship, and training for leisure all in their due place. They were, I admit, not general then, but in spite of all our new and enlightened ideas they are not too general now. It is easy to talk, and no one talks more than an educationalist: but to construct and to put into full use a school library requires time, money, and hard work without immediately apparent results. And these things are not common.

Let us go over some of the ground again, and if it is not too tedious descend a little more into detail. I said a little while ago that the first object of a school library is to help the work of the classroom. And so it is, but there arises the practical difficulty that the school library is in one place and the classroom is in another. You cannot turn the library into a classroom for everybody, and you cannot always be sending for books, or borrowing books for a considerable period, when others may want them. Hence follows the practical deduction that every form and every classroom should have its library, rather

an extravagant word for the few shelves of books which I have in mind. What those books will be will depend on the master and upon the nature of the subjects which are taught in the room. But a form master who is really alive to his opportunities will easily form a collection of books which are useful for instructional purposes and will also contain a number of volumes which he would like his boys to read. Some of these he will get people to give, and it is an appeal that seldom goes without a very fair response to ask boys when they leave the form to give one book to the form library from a specified list. Perhaps on the instructional side he will be fortunate enough to obtain a grant from the school funds, but much more probably he will be unable to do so. It is the eternal lack of pence which vexes libraries, great and small. I, for my part, have never been able to understand why governing bodies and local education authorities will willingly and without any demur spend hundreds of pounds on test tubes, balances, chemicals and apparatus, and shy at an equal number of shillings if devoted to books. It is not surprising that there are discontented souls who say that of all the school subjects science costs most and gives least result, and when you find University professors, as you commonly do, saying that they wish that science was not taught at all at the school, the result is, to say the least, depressing. The topic is thorny, and I will not pursue it. But the form library is good in another way, in that it invites the co-operation of boys. It is a little small-scale job which they can do. They can keep the catalogue up to date; they can manage the lending out of books at stated times; they can collect the fines for late returns—a process which gives them pleasure. And all the time they are learning on a tiny scale something about the way in which libraries are run.

In a school which has some resources, I think that it is a good thing that there should be specialised libraries, commonly housed in the classrooms of the masters who are heads of the respective departments. I am thinking more especially of modern languages, mathematics, science, and geography: opinions will differ, but my own view is that history, politics, economics, and classics are more in place in the main library. I hold that in all aided and maintained schools there should be a small part of the grant definitely allocated to the provision of such aid to the pupils just as there is a charge for the wood which they use in the carpenter's shop, and for the test tubes which they use in the laboratory. And, again, we can seek help from voluntary gifts. Most boys when they leave school are glad to make a parting present, and if they have attained to the dignity of a specialist in the Sixth Form, what more suitable gift can they give than a book for the use of future specialists like themselves?

Ways and means are always a difficulty, but I have found one idea which has proved very repaying and helpful. Particularly after the war, parents were very anxious to give something to the school either in memory of a son who was to come back no more, or in gratitude for his safe return. And not infrequently to-day other parents like to make a gift to commemorate the happy and successful career of a son at the school. I have found that the establishment of a small branch library, or a branch of the main library, frequently appeals to them strongly. Several times I have had gifts of £100, of which £50 was spent upon books, in each of which was inserted a bookplate

stating the name of the boy in whose memory or honour the gift had been made. The remainder was invested, and the income went to adding a few new books each year, which were similarly marked. I believe that such gifts help a school more than a new diving board in the swimming bath, or a new shed in the playing field, or even a new window in the chapel. They render a fresh service from year to year, and they form a better commemoration. Everyone is interested to read what is printed in a bookplate in a volume which he is reading, and most of the alternative gifts which can be made have not the same utility and still less the same durability.

These are mere suggestions as to the ways and means by which school libraries can be formed, and what is as important, in some ways, kept up to date. It is in most schools, so far as my experience goes, an incessant struggle, and head masters who are interested and conscious of the importance of the library are driven to seek the support of the benefactor and the generous pupil. It is a great satisfaction to be able to divert a generous parent from founding a totally unnecessary prize to helping the school library. It is good for one to struggle : one always values most the things for which you have to work hardest. But I cannot help looking forward to the time when governing bodies and local education authorities will take a different view of the needs of school libraries and will support them more generously, remembering that the need is greatest when the homes are poorest.

It is not enough, though it is a great thing, to have formed a library : it is necessary to train the boys also to use it. As a boy rises in the school his work should be more and more directed to the library, and have the library as its background. Such training can begin in simple ways. An essay can be set, and the master indicate certain books in the library from which help can be got. And later a more ambitious subject can be taken, and the form as a whole, or a group from the form, can be set to gather from books in the library the material for their joint research. For instance, the subject might be a study of England in the reign of Queen Anne, and one group might be set to collect facts about the army and navy, another about the literature, another about the work of Sir Isaac Newton, another about the means of travel, the agriculture, and the industries, and so on. All the time, in however a rudimentary way, they would be learning to use books, and to form the instinctive sense that if they want real knowledge they can hunt it out for themselves from a library. And in this way they can train on into becoming specialists who can be safely left to themselves to use the library for their own studies for a certain definite proportion of their time, so becoming more fitted for entering upon University studies, and also in my opinion much more likely to become intelligent and well informed members of the community.

I have, I confess, largely been thinking of the conditions in the public boarding schools which are freshest in my memory. The conditions for the formation, maintenance, and use of libraries are easier in the boarding school than they can be in the day school, and this is due not only to the fact that they have generally more money, but they have also more time. In the day school there is the crowded dinner hour followed by the hasty flight of the vast majority of the pupils at four o'clock to their homes, near or far. It may be argued that the day

schools have one definite advantage that there is generally a good municipal library within reach to which they have easy access. I do not belittle it, but for all that it is not the same thing as a library of your own which you can shape and direct. It is in the day schools that most advance can be made : they are awake to the importance of having their own library, but they are too often without any suitable room and without any adequate means for the purchase of new books and the maintenance of those which they have. A keen and competent master, who can rouse the interest of keen and competent boys, can do much, even under the hampering conditions of lack of time from which all day schools suffer. Once slackness creeps in, all is ruined : books are misused, they are borrowed and not returned, stolen, forgotten. In an extremely short time most of the work has to be done all over again. In a day school of which I was head master, I was able to trace three libraries which had existed in the seventeenth, eighteenth, and nineteenth centuries, all of which had like an unsubstantial pageant failed and left not a book behind. That is why I hold it all-important to secure the actual co-operation of the boys in the making of the library, and to direct the school work to the use of the library steadily and increasingly throughout the course of school study. Somebody must be lavish of trouble and lavish of time.

If this were attempted and done everywhere it could not but produce a better informed and a more intelligent nation, and you who are an association mainly of information users would find even a better and a fuller membership. My one wish is, I am afraid, a vain one, that in offering to you these remarks I may not have given you information with which you were only too familiar already.

Teaching the Use of Libraries.

By PEYTON HURT, Ph.D.

Assistant Librarian and Instructor in Librarianship, University of California.

The average educated person, like a member of this Association, is throughout life mainly an information user. Unless specially trained, however, the average person fails to realise the amount of printed information conveniently available in libraries and lacks the ability to find and make use of it. There now appears to be a desirable trend in educational institutions towards placing more stress on methods of independent study and research and less emphasis on purely factual data. This should include instruction in the location and use of printed sources of information and, consequently, we may hope to see the introduction of more courses in bibliography and library methods. There are, however, many difficulties. Many scholars are sceptical of the value of teaching methods of library use in separate courses of instruction. If library use is a method and not a subject, why not teach it in connection with history, geography, economics, and other subjects for which the library is a source of information? Cannot library methods be learned in the study of subjects of interest?

The answer may be that here is a method sufficiently important to justify a separate course of instruction. Under present conditions, ordinary subject courses in American colleges and universities fail to impart methods of independent use of a library as a source of information. This is well known to librarians and has been substantiated by tests of selected groups of university graduate students for ability to use a library and for opinions regarding the need of instruction in library methods.* No doubt more instruction should be given in the use of books and libraries, some of it in connection with regular subject courses. But students need at least one course in library methods and general bibliography to give them a unified outline of the materials and methods involved in using a library for information on the wide variety of miscellaneous subjects on which information may be needed in the course of their lives.

Such instruction should be part of pre-college curricula, but it may, nevertheless, be desirable in institutions of higher learning. In recent years many high schools and junior colleges in the United States have introduced courses and taken other steps to improve their students' knowledge of library use, and this field is likely to receive more attention in the future. The colleges and universities find, however, that students come to them without sufficient preparation for independent study and research in a large library. Consequently, the institutions of higher education need introductory courses in the use of books and libraries, as well as courses in subject bibliography and research methods.

It may be that several college and university courses are needed, one for freshmen, being in the nature of an orientation in library

* Peyton Hurt, "The Need of College and University Instruction in the Use of the Library," *Library Quarterly*, IV (July, 1934), 436–48.

use for the reading connected with first- and second-year subject courses, another, for juniors and seniors, to acquaint students with subject bibliography and prepare them for independent study in their major fields, and, finally, graduate courses in the bibliography and research methods of each of the principal fields of graduate study. The latter courses in subject bibliography are more readily acceptable to college and university authorities since they fit into the existing departmental organisation of fields of instruction and research. An examination of university catalogues will reveal that a number of institutions offer senior or graduate courses in historical bibliography, the literature of chemistry, or the materials and methods of research in other fields of study. An analysis of these courses would probably show that they duplicate one another in covering the background of general bibliography and library methods common to nearly all fields, or that much of the basic material—the library catalogues, periodical indexes, and general reference books—is omitted. In either case, there are good reasons for developing in each college and university an introductory course in library use and bibliography to provide all students with a sound general background on which to base later specialisation in the bibliography and research methods of particular fields. A general introductory course would reduce the need for graduate instruction in the bibliography of special fields, because, with thorough instruction in the principles of bibliography and library methods, a competent student would be prepared to familiarise himself with the bibliography of an individual subject. But without such general background, even a mature scholar is likely to be awkward in dealing with publications outside of familiar territory and perhaps somewhat uncertain of the bibliography of his major field of interest.

Not many colleges and universities have satisfactory general courses in library methods, and such courses are not well established in the minds of educational authorities as being an essential part of a basic curriculum. The principal difficulty is that general bibliography and library use is a field so broad that individual teachers, being scholars in relatively limited fields, have not taken active interest in developing the needed courses of instruction. Furthermore, this field of instruction is unattractive because courses in library methods seem to call for a large number of problem sets, which leave very little interesting work for the teacher.

Nearly all of the introductory courses in library use have been started and are being conducted by librarians. Good examples are the courses in library methods at the University of Illinois and the University of Minnesota, which have been taught by librarians for many years. For three years, the School of Librarianship of the University of California has been experimenting with a course in library use and general bibliography, designed to provide economical and efficient instruction for a college or university class with large enrolment. Usually, such classes are broken into a number of sections with limited enrolment and are conducted so that they require a costly amount of library service through the assignment of routine practice work to familiarise students with library materials.* The experimental

* *See Charles H. Brown,* " Outline of Course with problems on the Use of the College or University Library," *School Library Yearbook,* No. 1 (1927), 99–122.

course at the University of California has aimed to develop simpler and more economical methods of instruction in order to promote the widespread establishment of college courses in library methods. The problem is for one instructor to handle in a single class, without sections, the large number of students needing such instruction, to avoid unduly burdening the library with students working routine problem assignments, to make the course interesting and attractive to students, to make its value apparent to the university faculty and, thereby, to gain the support of those who advise students in the election of courses of study.

Briefly stated, the method of instruction is to rely on lectures and class discussions and not on problem assignments to explain library use, to develop a laboratory collection consisting of back numbers and duplicate copies of reference books and other materials used by the class, and to teach the students to practice library use in connection with their study of the subjects taught in other college courses, in the preparation of term papers, reports, and theses, and in independent study projects.

The course covers the following materials: (1) methods of writing footnote and bibliographical references; (2) the extent, nature, and relative significance of types of library materials (books, monographs, pamphlets, periodicals, Government documents, and reference books); (3) encyclopædic compilations (dictionaries, encyclopædias, and works dealing with biography, geography, and statistics); (4) reference tools that serve as indexes and guides to printed information (the library card catalogue, bibliographies, periodical indexes, abstracts, and indexes to Government publications); (5) the works that serve as aids to the selection of reading materials (book reviews, guides to the literature of subject fields, selected bibliographies, and guides to plays, short stories, novels, and other materials), and (6) methods of procedure in using library materials for information on topics of interest.

The lectures are devoted to outlining the various types of publications available in a library and illustrating their use as sources of information. An effort is made to relate the discussions of library methods to the study of college subjects, to interest students in obtaining information through efficient use of the library, to use practical illustrations, and, above all, to avoid treating library tools and techniques as an end in themselves. A printed syllabus is used to illustrate the forms of footnote and bibliographical references*; a mimeographed syllabus which lists basic reference books is used for a text.† These are supplemented by a special working collection of duplicate materials set aside for class use to avoid excessive use of regular library services for practice work. The laboratory collection contains a complete set of sample copies of various types of periodicals, back numbers of *Who's Who*, and similar works, almanacs, yearbooks, the *Annual Register, Congressional Directory,* statistical abstracts, and some older editions of selected reference books. To assist in an explanation of the card catalogue, copies of Library of Congress

* Peyton Hurt, *Bibliography and Footnotes: A Style Manual for College and University Students* (Berkeley: University of California Press, 1936).

† University of Minnesota Library, *The Use of Books and Libraries* (Minneapolis: University of Minnesota Press, 1934).

printed cards are distributed to members of the class. Encyclopædias, dictionaries, biographical compilations, and similar works are commonly kept on the open shelves in college and university libraries and need not be included in the special laboratory collection for a class in use of the library.

In the course outlined above, bibliographical materials are not discussed under individual subjects, such as History, Science, or Literature. The emphasis is placed on types or forms of library materials, with some indication of the special works of each type devoted to particular subject fields. The theory is that if a student gains an understanding of the network of periodical indexes available in a library, he may search and find for himself the ones best suited to an immediate problem. If he has a sound general knowledge of dictionaries, he will be able to locate one devoted to technical or legal terms when the need for such a work arises. As for subject bibliography, the students are urged to devote particular attention to the special indexes, bibliographies, encyclopædias, and other works useful for the study of their major subject fields. All of the students are expected to learn to use the basic library materials covered by the course, while individual students are expected to gain some additional special knowledge of the publications most useful in their particular fields of study. Assignments that permit the students to select topics for practice library work and, to some extent, to select the materials to be consulted, aid them to gain special knowledge of the bibliography of subjects of individual interest.

In this experimental course, the class is led repeatedly through the logical steps of procedure for the use of a library as a source of information on topics of interest. This is done by classroom discussions of methods of finding and selecting printed materials dealing with selected subjects, which may be typical topics assigned for college term reports, matters suggested by current events, or questions selected to illustrate problems of independent study and research. In response to typical questions involving library use, the students are required first to decide upon the type or types of library materials to be consulted (e.g., periodicals, Government documents, or reference books), then to choose the appropriate subdivision of the type selected (e.g., learned society journals, encyclopædias, or periodical indexes), and, finally, to determine upon a specific work, which need not be remembered by name (e.g., an encyclopædia containing good information about educational institutions) but which may be found through the use of standard guides to library materials.

For most of the ordinary problems of library use, a plan of procedure may be worked out in advance, and the aim of this course is to help the students develop the habit of approaching a library in a systematic manner for independent study and research. The students are advised at the outset to " reason rather than remember " in seeking publications which may contain needed information. The rule of procedure is from the general to the specific, from broad summaries to specialised treatments of particular phases of the subject under investigation, from encyclopædias and similar compilations through the indexes and guides to selected books, monographs, articles, and Government documents. Good illustrative topics may be taken from current events and from the subjects which the students are studying in regular subject courses.

A class of 200 students has been handled successfully by the methods outlined for the conduct of this course. There are two lectures weekly for one semester ; the course is accepted for two units of credit towards graduation. Faculty advisers, especially in the departments of History, Economics, and Political Science, are recommending that students take such instruction, and it is possible that within a few years it will be a basic part of the undergraduate curriculum. A detailed outline of the course is available upon request from the School of Librarianship, University of California, Berkeley, California, U.S.A.

Individual librarians and groups in the American Library Association are taking steps to urge more widespread instruction in library methods in colleges and schools in the United States. It is to be expected that many institutions may establish courses following the example of the Universities of Illinois, Minnesota, California, and others pioneering in this field of instruction.

(*Continued from p.* 36)

impression on the minds of the pupils, but, if the talks were backed by question papers, for which marks would be awarded by the college principal, then the effect of the lessons was likely to be more enduring. The public library was solely responsible for the framing of the syllabus, the drafting of question papers, and the general control of the classes.

The syllabus was divided into four sections, one for each of the four consecutive weeks during which the classes ran. Groups averaging twenty-five scholars attended in rotation each morning for one hour (Friday and Saturday excepted) so that, at the end of the four weeks, the hundred scholars provided for had systematically covered the syllabus. The first lesson was devoted to directories. After a general talk on directory characteristics each scholar answered a question paper involving the use of each of five types of directories. Lesson two covered telegraphic codes, telephone directories, telegraphic addresses, and company registers ; question papers were set involving the use of each group. Trade and technical periodicals and Government publications were considered in lesson three, and the fourth lesson dealt with the catalogue and the general library arrangement of books, question papers again being set.

Incidentally, the question papers were eventually corrected by the library staff and sent to the principal of the college, who took them into account when awarding diplomas at the end of the college course. The interest shown by the scholars was very evident, and the success of this experiment justified its continuation. The value of such lessons was obvious. Young people, entering industry, would possess at least some knowledge of how and where to look for the ordinary commercial information, and the public library established a useful contact with the business life of the community it served. Moreover, the idea might be adapted to meet the requirements of other groups, for instance the scholars of junior technical colleges could be made familiar with general sources of scientific and technical information.

In replying to the discussions, Miss Meixell said that the idea of library instruction grew out of a desire to make readers independent of the library assistants. Although training in the schools in America was still very uneven, more co-operation was being attempted between elementary schools and the public libraries.

After expressing a cordial vote of thanks to Miss Meixell on behalf of the whole Association, the Chairman said that the need for instruction in the use of libraries was very widely felt in England, and this instruction must be given by library staffs. He expressed the hope that the papers would lead to further discussions of the subject at future meetings of ASLIB.

Mr. A. F. Ridley, in seconding the vote of thanks, asked Miss Meixell to bear greetings from ASLIB to the Special Libraries Association of America.

Library-Trained Teachers.

By LOUIS SHORES.

Director, Library School, George Peabody College for Teachers.

Recent trends in American education reveal an increasing library participation in the learning process. From kindergarten through graduate school there is tangible evidence that books and reading seem destined for a part heretofore contemplated only by idealists and a few educational leaders still in the vanguard. The often quoted Carlyle statement, "The true university is a collection of books," apparently is on the verge of realisation in the American school system.

Years ago two presidents of two great American universities—Eliot at Harvard and Harper at Chicago—must have had much the same idea when they predicted the increased output of good books would likely do something revolutionary to classroom methods of teaching. And just before his death, the late Sir John Adams crystallised the thinking on library-centred education in his startling paper, "The Library as Integralist," * by suggesting the possibility of a library-centred curriculum. Up until a decade ago, however, the vision of a library-centred school was not taken seriously outside of commencement addresses.

To-day the library's growing importance is plainly seen in American higher education. Graduate schools have detailed special staff members to advise with students on library procedures. Universities have begun to devote seminars and conferences to instruction in the use of library tools. As a result, a new type of professor has appeared in our graduate school, a kind of cross between a librarian and a teacher.

But most startling has been the amazing rise of the library in the American liberal arts college. The introduction of the social studies into the curriculum and the reserve book system into library organisation greatly increased college library use during the first quarter of the century. The last decade, however, has seen the appearance of one after another "new" plan of college instruction—Swarthmore's *reading for honours,* Antioch's *autonomous courses,* Rollins' *professor of books,* and *independent study* at Chicago, Harvard, Princeton, Wabash, Southwestern, and elsewhere. Basically, each of these "plans" involves decreased classroom attendance and increased library use. In some instances classes have given way entirely to guided reading and justified the prophesy of a Library Arts College made in 1934.†

The last few years have brought an unprecedented increase in school libraries. As long as the single-textbook teacher dominated the school programme the library lagged. Largely through the efforts of librarians and progressive teachers library standards have developed and school collections have increased. The Southern Association of Colleges and Secondary Schools, for example, has included library

* *Libraries* 36: 193–96.

† Shores, Louis. *The Library Arts College.* School and Society 41: 110-14. Jan. 26, '35.

requirements which, among other things, specify every school with an enrolment of 200 or more must have at least one full-time trained librarian. A nation-wide co-operative set of standards for secondary schools, now in preparation, establishes the library as a major department.

The chief obstacle to school library development, however, has been the inadequate preparation of the teacher and school administrator whose professional training has often suffered from lack of contact with adequate library resources. In 1933, Miss Mabel Harris studied the status of library instruction in over one hundred teacher-training institutions, and on the basis of this study suggested a minimum programme for teachers in training.* The following year the American Association of Teachers' Colleges and the American Library Association appointed a joint committee to study the problem of library instruction for teachers. Miss Lucile F. Fargo directed the study for the committee, and the report, in mimeographed form, recommending a minimum course of library instruction for all teachers, was issued last year. In the fall of 1935 a conference on library education in the south was called in Atlanta. One of the recommendations resulting from this conference reads :

> Inasmuch as a knowledge of the place, function, and use of the library in the school, a wide acquaintance with books and reading for boys and girls at elementary and secondary levels, and an understanding of the services available through varied library agencies should be part of the professional equipment of every teacher, it is recommended to the Southern Association of Colleges and Secondary Schools that instruction in these fields be designated under the teacher's professional requirements.†

Perhaps the pioneer attempt to provide a planned programme of library instruction for teachers was undertaken in George Peabody College. In 1931 a library school set up to train school librarians to meet the standards of the Southern Association of Secondary Schools was accredited by the Board of Education for Librarianship. The course of study in this school did not vary greatly from that found in each of the other accredited schools, except for slightly greater emphasis on school library problems. It soon became evident that something more than trained librarians was needed to further the cause of school libraries.

The chief obstacles to school library development appeared to be : (1) ignorance of the library's possibilities in the school on the part of the school administrator and teacher ; and (2) inadequate understanding of the school programme on the part of the librarian. Here, then, appeared to be an opportunity for a library school located on a teacher training campus : the integration of teacher and library training. Increasingly the Peabody Library School has been able to realise its two-fold purpose of training school librarians who would understand and sympathise with educational problems, and of instructing school administrators and teachers in library methods.

* "Non-professional library instruction in teachers' colleges," *Peabody Journal Education* 12 : 86–95. Sept. '34.

† *A.L.A. Bulletin* 30 : 30. Jan. '36.

The programme for the professional training of school librarians is designated *Library Science*. These courses emphasise library management—administration, book selection, reference and bibliography, cataloguing and classification, history and philosophy of librarianship. This programme is based on the standard course of study found in American library schools accredited by the American Library Association.

The programme of library instruction for teachers and school administrators is designated *Library Education*. These courses emphasize library *use* rather than library *management* and include an introductory unit on the use of books and libraries, various units on bibliography, library procedures and sources, thesis form, note-taking and reading, units on library use in teaching, and courses in children's and adolescent literature.

The complete library-training programme falls into three large divisions :

I. *Library Education*, for teachers-in-training, teachers-in-service, and administrators, intended to provide instruction in *library use*.

II. *The Three-Year Professional Unit in Library Science*, for library teachers and teacher-librarians of small rural schools.

III. *Library Science*, for full-time school librarians, county and consolidated school library supervisors, teachers' college librarians, junior college librarians.

As this paper is concerned primarily with Library Education, only the first programme will here be described. Its general plan, in outline, follows :

LIBRARY EDUCATION PROGRAMME

Unit Description.	Course in which offered.	To whom offered.	Number of class periods (minimum).
Use of books and libraries.	English 111	Required of freshmen, and all undergraduates who cannot pass library aptitude test.	6
Library use in elementary school teaching.	Elementary education 400A.	Required of all elementary teachers in training.	4
Library use in secondary school teaching.	Secondary education 471.	Required of all secondary school teachers in training.	4
Library in American education.	History of education 420B.	Required of senior college students.	4
What constitutes a school library.	Administration 561A.	Required of school administrators in training.	4
The American college library.	Higher education 566.	Required of higher education majors.	4

LIBRARY EDUCATION PROGRAMME—(*contd.*)

Unit Description.	Course in which offered	To whom offered	Number of class periods (minimum).
Library use in research.	All seminars.	Required of all masters candidates.	4 double periods
Library research methods.	Education 611B.	Required of all doctoral candidates.	8
Reading guidance in the elementary school.	Library science 317A.	Open to any student of at least junior rank.	33 class periods
Reading guidance in the secondary school.	Library science 317B.	Open to any student of at least senior rank.	33 class periods

Junior College Units on Library Use.

(Six class periods in English.)

I. Library organisation in Peabody.
   - A. Arrangement of building, equipment, and materials.
   - B. How the library may be used; rules affecting borrowing of various types of materials.

II. Locating specific books, periodical articles, or other materials.
   - A. Through the classification scheme.
   - B. Through the card catalogue.
   - C. Through bibliographies.
   - D. Through indexes.

III. Locating specific items of information.
   - A. Through dictionaries and word books.
   - B. Through encyclopædias and yearbooks.
   - C. Through atlases, directories, handbooks, etc.

IV. Compiling a bibliography.
   - A. Format and content of a book.
   - B. Recording form.

V. Reading for information.
   - A. Scouting.
   - B. Reading.
   - C. Notes.

VI. Reading for pleasure.
   - A. Reading advice: bulletin boards.
     book reviews.
     librarian.
   - B. Some books and periodicals worth reading.
   - C. How to buy books:
     1. Subscription sets.
     2. The best books for one's own library.

Library Use in Elementary School Teaching.

(Four class periods in elementary education.)

I. Library lessons in elementary schools.
   - A. Review of how to use the library.
   - B. Library lessons for the elementary school :
     1. Library citizenship—care of books ; parts of books ; quiet in library.
     2. Dictionary use.
     3. Encyclopædia use.
     4. Catalogue and classification.
     5. Periodical index.

II. Library materials for elementary schools.
   - A. Selection aids :
     1. Children's catalogue.
     2. U.S. Office of education.—Aids for elementary school libraries.
     3. Other lists.
   - B. Information Books :
     1. Dictionaries : *Thorndike*, *Webster*, and *Winston* compared.
     2. Encyclopædias : *Compton's* and *World book* compared.
     3. Other sets.
   - C. Recreation Books :
     1. Classics.
     2. New juveniles.

III. Library organisation in elementary schools.
   - A. The book collection.
   - B. Quarters and equipment.
   - C. The librarian's activities.
   - D. Organisation for service : classroom and central collections.

Library Use in Secondary School Teaching.

(Four class periods in secondary education.)

I. Library instruction in the secondary school.
   - A. Review of how to use the library :
     1. Which units will prove most helpful in college.
     2. Which units will prove most helpful in life.
   - B. Library lessons for high school :
     1. Library citizenship :
        a. How the school library operates.
        b. Regulations and their value.
        c. Correct handling of books.
        d. Respect for other readers' rights.
     2. Locating information.
     3. Locating library materials.
     4. Compiling a bibliography.
     5. Reading for information.
     6. Reading for pleasure.

II. Library materials for secondary schools.
   A. Selection aids :
      1. Standard catalogue.
      2. U.S. Office of education.—Aids for secondary school libraries.
      3. Other aids.
   B. General information books :
      1. Dictionaries : *Webster* and *Funk & Wagnalls.*
      2. Encyclopædias : *Compton's* and *World book* ; *Americana* and *Britannica.*
      3. Yearbooks : *World Almanack, Statesman's Yearbook, American Yearbook.*
      4. Atlases : *Goode's School Atlas.*
      5. Periodicals : Abridged readers' guide.
   C. Special information on books for the secondary school studies :
      1. Languages and literatures.
      2. Social sciences.
      3. Natural sciences.
      4. Vocational studies.
   D. Recreation books.

III. Library organisation in the secondary school.
   A. What constitutes a good school library.
   B. The librarian's activities.
   C. Organisation for service :
      1. Library versus study hall.
      2. Textbook versus source materials.
      3. What the teacher has a right to expect from the librarian.
      4. What the librarians have a right to expect from the teachers.

Library in American Education.

(Four periods in Principles or History of Education course.)

The library in the development of American education.

I. Changing conceptions of the library's place.
   A. Educators' conceptions of the library's place in education.
   B. Librarians' conceptions of the library's place in education.

II. American library agencies and movements of interest to teachers.
   A. City, county, and regional libraries.
   B. State library agencies.
   C. Federal library agencies.
   D. College and university libraries.
   E. School libraries.

III. Library activities of special interest to teachers.
   A. Public library :
      1. Children's room.
      2. Parents' and teachers' rooms.
      3. Readers' advisory service and adult education.

B. State library agencies :
   1. Extension.
   2. Library commission, supervisor, or State librarian.
   3. University.
C. Federal library agencies :
   1. Library of Congress.
   2. U.S. Office of education library.
D. College and university libraries :
   1. Student instruction in library use.
   2. Student recreational reading.
   3. Alumni reading.
E. School libraries :
   1. Bibliographies, indexes, and other aids.
   2. Professional collection.

IV. Librarianship as a profession.
   A. Divisions of work.
   B. Professional training.
   C. Professional associations and publications.

What Constitutes a School Library.

(Four periods in Administration.)

I. Personnel : The librarian.
   A. Qualifications to be sought.
   B. Services to expect.

II. Book collection : the essential materials.
   A. Methods of acquiring.
   B. Methods of selection.
   C. Methods of organisation.

III. Quarters and equipment.
   A. Location, size, and other requirements.
   B. Equipment.

IV. Administrative control.
   A. Financial support.
   B. Development policy.
   C. Library versus study hall.
   D. Library's possibilities in the school.

The American College Library.

(Four periods in Higher Education.)

I. Origin and development.

II. Organisation and administration of college library.
   Quarters and equipment.
   Selection of materials.
   Personnel.

III. College library services.
   To faculty.
   To students.
   To alumni.

IV. Current college reform and the library.

Seminar Library Instruction.

(Required of every master's candidate who cannot pass library aptitude test.)

(First four double periods, after first period.)

I. Library organisation: Decimal and Library of Congress classification; the dictionary card catalogue; location of materials in the Peabody library; library procedure.

II. General reference materials in research; dictionaries, encyclopædias, yearbooks, serials, indexes, bibliographies.

III. Practical bibliography: thesis form; compiling the bibliography; footnote references; reading methods; note-taking; organisation of materials.

IV. Periods III to VI in four sections.
- Section A. Special research materials in the languages and literatures.
- Section B. Special research materials in the social sciences.
- Section C. Special research materials in the natural sciences.
- Section D. Special research materials in education and psychology.

Education 611B. (Required of every doctoral candidate who cannot pass the library aptitude test. Meets four times a week for three weeks. Twelve periods.)

I. Library organisation.

II.–IV. General library research materials.

V.–IX. Special library research materials.

X. Practical bibliography.

XI. Dissertation form.

XII. Individual dissertation problems.

(*Continued from p.* 47)
were "largely untrained," and emphasised the value of the pioneer work of the librarians of the nineteenth century, quoting as an example the detailed scheme of Edward Edwards, the first chief librarian of Manchester, who, in 1851, stressed the value of commercial and technical information, the provision of books for children, the collection of local information, the need for adequate catalogues, etc.

Whilst admiring the value of special library training, he considered that, without the actual practical training in a well-organised library, the theoretical training would be of little value.

Mr. D. Shapland outlined an experimental scheme of instruction in the use of specialist books which was recently organised by the Sheffield City Libraries. The Sheffield Education Committee maintained a commercial college to give a one-year course in commercial subjects to about a hundred pupils who had attended a secondary or an intermediate school, and had reached the standard of the school certificate examination. In order that the scholars should become familiar with the ordinary sources of business information, a series of practical lessons in the use of business reference books was actually held in the commercial department of the central library. It was felt that instructional talks alone would make but a slight

(*Continued on p.* 28)

Library Consultation Services as developed at Teachers College, Columbia University.

I. INTRODUCTION.

By ELEANOR M. WITMER,
Librarian of Teachers College.

In America to-day forty out of every hundred boys and girls who complete the first twelve years of public school education are likely to secure college or university education. A half-century ago this was not true. Then the colleges and universities were still for the few and chiefly for those who sought to enter the professions of law, medicine, or theology. Under these conditions intimate relations existed between students and professors. With few students libraries were adequate. Famous scholars surrounded by their books gave individual attention to a small number. Research was attacked together; interpretation was made incidentally; great scholars gave the inspiration; great scholars were the result.

But as a general thing in American colleges and universities these conditions are gone forever. We find instead thousands of students, huge buildings, a multiplication of courses, a variety of departments, schools, and colleges. The conference has become a lecture course; personal advice, a general syllabus; research guidance, a printed text on how to write a dissertation; while the library, formerly the work room, the meeting room, the research room, the teaching room has tended to become an increasingly large collection of books technically well organised, efficiently administered, admirably housed, but with all more of a service station than a force; an agent, not a principal. Thus, at least, Dean William F. Russell of Teachers College, Columbia University, saw the general situation in 1928.

This situation in the main is that which Teachers College still faces to-day. Once a small institution with only a few hundred students its several special library rooms served at once as collections of books and as places of work for professors and a few students. Here they met; discussed their problems, used books and print materials together, and worked out their solutions as best they could. To-day Teachers College enrolls from ten to fifteen thousand students a year. Its centralised library functioning in a new way to accommodate increased numbers of students, has adjusted for quantity in its acquisitions, circulation, reference service, and space for reading and housing. But with all it still faces one of its most challenging problems —the adjustment between books and classroom teaching, the development of administrative and instructional programmes which will make the Library the intimate, integral educational agency it should be.

The formulation of consultation services as a part of the library programme represents one of the ways in which Teachers College Library is attempting to meet this challenge. Its programme of instruction and bibliographic assistance is definitely designed to tie

up more closely classroom teaching and student problems with print resources. Its first years of experimentation have therefore aimed (1) to discover the nature of the problems faced by students in classrooms and in individual work; (2) to make known print resources which had a distinct bearing on these; (3) to direct students in their approach to the materials through the use of bibliographical and research tools available in libraries of the metropolitan area of New York. In order that this work might progress under the most favourable circumstances persons with special abilities, knowledge, and training were added to the Library staff. It was obvious that assistants assigned to desk and reading-room duties were not in the most advantageous position to make close contacts with classroom situations through visits, conferences, observation, and participation in discussions. Teaching ability also seemed to be an important qualification for the personnel selected to carry on this experimental work which involved instruction before the graduate faculties and experienced educators. In spite of the availability of librarians and educators few could meet these qualifications and also present expert knowledge of the various phases of education and professionalised knowledge of library techniques and tools. Well qualified persons who could supplement each other's knowledge were therefore selected. The present group of four consultants utilises the services of three librarians and an educator each of whom can make a particular contribution to the service. These members of the Library staff, working under the direction of the Librarian, are in turn aided by their co-workers, the department heads, and subject specialists.

With the generous support of the Carnegie Corporation a five-year experiment was assured and launched in January, 1932. From the beginning the plans for service were held to be highly experimental. Many methods of approach to individuals and to classes were tried for short periods. Those proving most successful are given in some detail in the following reports of two members of the staff. In them will be recognised certain common assumptions, chiefly these:

(1) The educators need to locate quickly information and data for research or field problems.
(2) The lack of bibliographical aids in the field of education.
(3) The increasingly large mass of print materials from which selection must be made by individuals.
(4) The educator's responsibility for directing boys and girls in their selection and use of print materials in school and public libraries.
(5) The importance of guidance in the use of tools and materials which pertain to a specialised field of education or to a highly individual problem.
(6) The responsibility of the college for developing independence in the use of libraries for continuing self-education.

The results of the services rendered by the four members of the consultant's staff are not measurable by statistics alone. The strong bonds established with teaching departments of the College, the mental equipment of the individual who has learned techniques and skills, the bibliographic aids developed and printed, and such intangible evidences as lie in attitudes and in field library developments, never

reported to the College, must all be taken into account. Perhaps it is sufficient to record that in the services developed by this staff lie one of the Library's greatest contributions to the individual as well as the mass of students and faculty. All are richer in understanding and ability and the Library has become a living and vital force in the College.

II. CONSULTATION SERVICE FOR ALL STUDENTS.

By ETHEL M. FEAGLEY,

Library Consultant.

This experiment in consultation service began with no ready-made programme. Instead tentative plans were drawn, built around the needs of students as demonstrated in the library and in the classroom. Some of these plans were discarded during the past four years ; others were modified almost beyond recognition ; a few remained intact. As a backward glance is taken over the work of this initial period the following methods of approach seem to justify their own existence.

I. General Library Lectures

One of the first projects undertaken by the library consultation service was to relieve the bewilderment which often confronts new students who are meeting a large and highly organised library for the first time. At the beginning of each semester two lectures were scheduled to explain the arrangement of the Teachers College Library —the use of the card catalogue, and the scope of the various periodical indexes. It was felt that these fundamental techniques could serve as a foundation for all other library use and as a starting point for good study habits. The success of these introductory lectures, which have been repeated each semester, led to a series of eight meetings for the summer session. Three of these are general in nature ; five of them deal with materials for special subjects, as shown in the following list :

The arrangement and use of the library's resources ;
The use of magazine indexes ;
Bibliographic sources and techniques ;
Library aids helpful to teachers of English ;
Library aids helpful to elementary school teachers ;
Library aids helpful to teachers of history ;
Library aids helpful to teachers of science ;
How the library aids the school.

As might be expected the introductory lectures draw large crowds of students. But as the subjects become more specialised in scope, and as the free time of the students dwindles, the attendance drops in numbers. Even with these small groups, however, the time is well spent, and, in fact, there is often better opportunity for discussion because of the informality of the situation.

II. Meetings with Specific Classes

Of course, no programme of instructional service on the part of a library could function without co-operation from the faculty. Fortunately many professors at Teachers College have been taking advantage

of the Library's services. Each month calls come for one of the Library Consultants to attend a meeting of a particular class and to explain methods of beginning work on some phase of a special problem or to present the library materials related to that subject. During the college year of 1935–36, for instance, requests came from forty-nine classes for assistance of this kind, including such subjects as adult education, English, history, science, secondary education, physical education, curriculum research, nursing education, elementary education, and social work. The instruction varies from a lesson on the use of the library to a survey of the materials of research in that subject or definite instruction in beginning a term paper on some related topic. In a few instances, as for example, in the case of a large class in secondary education, in addition to two class meetings with the entire class when the use of the library as a tool for the pursuit of college information is stressed, the class is later divided into small groups according to their subject interests with each of which the Library Consultants hold informal meetings to present the library materials useful in the study of that subject as well as books and other tools helpful in teaching. Fifteen such meetings were held last year covering the subjects English, history, science, commercial education, modern foreign languages, art, music, vocational guidance, and the place of the library in the school.

III. Credit Courses

A. Ed. 121L. *Elementary Methods of Library Research.*

As students became aware of the advantages of this knowledge of the use of the library, requests came for a course with credit which would offer instruction and practice in these techniques. In the fall of 1933 the first experiment of this kind was tried, with the class Ed. 121L, Elementary Methods of Library Research. A beginning course, it is designed to aid students in locating material for term papers or problems in research in a logical and systematic manner. Half of the course period is devoted to definite instruction in the preparation of a bibliography for a term paper written for some class. The remainder of the time is spent in an examination of library materials which should be part of the intellectual and teaching equipment of every teacher. An attempt is made to introduce some practice in the use of these tools, as well.

*B. U.*165*a. Library Materials for the Directed Study of History.*

One of the criticisms made of high school teachers is that they do not know the literature of their specific subjects, nor do they use enrichment material in their teaching. High school librarians complain about this, and even supervisors of practice teaching make the same assertions. Work with students at Teachers College clearly indicated that prospective and even experienced teachers were not acquainted with the library materials helpful to the school work. Encouraged by the interest shown by students in the group meetings where history materials had been assembled and explained the Library Consultant decided to offer additional instruction in the form of a unit course of five lectures. The history department co-operated to the extent of recommending the course. At these meetings students have an opportunity to examine and appraise the various reference tools which

should be used in a progressive high school. The relation of the high school library to the teacher is also considered. This course may be taken for credit or visited without tuition charge.

IV. Consultations with Individuals

Perhaps the most interesting as well as the most valuable phase of the consultation service is the work with individual students. At first such guidance was available only in the office of the Library Consultant. Although this room was conveniently located in the foyer of the second floor of the Library within easy access to the card catalogue, the circulation department, and the reference room, yet only those students visited it who had had some previous contacts with the advisory department in a class or who were aware of their own difficulties. Those students who were struggling with the card catalogue or who needed advice in selecting suitable books either did not realise the opportunity for help or hesitated to enter an office with a question which at first sight seemed rather trivial.

As a new step in the experiment a desk was placed in the foyer close by the card catalogue with a sign indicating that information and advice were available. Gradually the service expanded until at the present time students seem to take for granted this opportunity for assistance with their library perplexities. And now, in addition to the requests at the desk, students also visit the office in greater numbers than ever before. During the past summer, for instance, there were more than 5,000 requests for information at the advisory desk, and more than 1,000 requests which entailed some instruction. This was a gain of more than 2,000 individual requests compared with July of 1935. These contacts lead to many return visits and often call for conferences of an hour or more. Such intimate relations between librarian and student constitute one of the vital phases of library service.

As one surveys the types of questions which come to the desk or office of the Library Consultant they are found to fall in the following general groups :

Information.

The greatest number of requests are to be found in this group, especially at the beginning of each semester. Questions on the location of materials, rules and regulations, and problems at the card catalogue fall in this category.

Instruction.

Sometimes a question for information indicates the need for instruction. A tour of the Library may be suggested if the student is a new-comer. Or a lesson on the use of the card catalogue or periodical indexes is given if the difficulty seems to fall in that direction. Mimeographed material is at hand to use with these lessons and if the student is especially interested there are problems to offer for practice. Many of these students return time and again with special problems.

Assistance in finding specific materials.

These requests are closely connected with the instruction group and also with the work of the reference department. When it is a

definite reference question asking for specific information the Library Consultant directs the student to the reference room, or the Reference Librarian may send a student to the advisory department for assistance in tracing a subject in the card catalogue as a first step in the solution of his problem. Many times the two departments work together with a student, pooling their knowledge and their resources. It is only co-operation of this sort between the entire staff of the Library and the Library Consultants which makes possible real advisory service.

Bibliographic information.

Many students need help with bibliographies for term papers or theses. Often it is merely a question of form in listing a few difficult references on methods of documenting papers. At other times assistance is needed in surveying the bibliographies of a field. Rules for filing cards, choice of subject headings, methods of writing annotations are some other phases of this subject which seem to cause difficulty, and for which instruction is given. In a few instances students who were unable to attend the class in bibliography have received detailed instruction.

Library information.

In the past requests of this kind have usually been brought to library schools. Teachers and school administrators, however, are beginning to realise the importance of the library and are turning to the Library staff of the Teachers College for information and assistance. Their questions relate to methods of classifying and cataloguing a personal or professional library and of organising a pamphlet or picture file. Often they are interested in sources of library service for a rural school area or methods of starting a library in their own school. Recently an increasing number of teachers have been discussing plans for library instruction in the elementary or secondary school.

V. Devices of Instruction

Although the consultation idea of the Teachers College Library is based upon the assumption that the success of any library service depends to a great extent upon the living guides who are able to direct the student through the increasingly complicated mazes of the large modern library, yet much of this service is dependent upon the arrangement of the Library and also upon devices of instruction. As far as possible the Library tries to arrange its materials so that students can find them for themselves. Signs, attractive and well phrased, serve as guide posts in the Library itself and in other parts of the College. For instance, above the door where the eyes of the students cannot fail to look the elevator carries a directory of the main floors of the Library, and in addition one sign advertising some service or group of tools. This last card is changed from time to time. Exhibits of library materials as well as teaching aids from other agencies are an adjunct of this instructional plan.

And during all these experiments with classes and individuals the members of the advisory staff have needed lists and teaching materials which they could use with classes and with individuals. As a result they have been building up a collection of teaching materials, plans

of the Library, lessons on the use of the card catalogue or periodical indexes, alphabetical guides to various collections and the like. And because of requests from students for lists of the books which have been presented in class a series of mimeographed lists was begun, called *The Library Consultant,* which has developed into a quarterly publication (see bibliography for a complete list of those issued).

It has been said: "Education in all levels is directed more and more to training students throughout their entire lives to use intellectual tools which have been gathered for them; to teaching them that their education is not complete, but just beginning; to teaching the habit of reference books." By the five methods just described Teachers College Library has been attempting to join with this wider aim of education by interpreting to students, either individually or in groups, the printed materials which will aid in college study and research, by presenting to them the potential value of the school library as a teaching tool, and by enabling them to pursue independent study and continuing self education.

III. SPECIAL CONSULTATION SERVICE FOR DOCTORAL CANDIDATES.

By CARTER ALEXANDER,

Professor of Education.

The nature of this service is determined by the consultant's necessity of approaching it as an experienced and expert educator and as one interested in problems of library utilisation by doctoral candidates in the Advanced School of Education rather than as a professional librarian. As indicated above, this "library professor's" duties are chiefly instructional and primarily for doctoral degree candidates in education. The doctorate of philosophy (Ph.D.) is for students interested mainly in conducting educational research. The doctorate of education (Ed.D.) is for students whose future work will lie largely in consuming or applying the results of educational research done by others.

Special service to doctoral candidates has developed with various modifications from discussions with the Dean and Librarian, starting as early as ten years ago, but it was not actually installed until the fall of 1932. The aim, in a nutshell, was to see what could be done to give this particular group of advanced students a better command of printed materials. The problems faced and the solutions proposed at the outset of the service are set forth in (5). The consultant's latest formulations of the skills needed in educational research with library materials and basic principles for acquiring these skills appear in (1) and (6).

As the service is primarily instructional, it does not merely help students to find quickly the library materials they need. It aims so to help them that they will later be appreciably more skilful and resourceful in finding and using these on their own account. At present the service operates along three distinct lines: (1) Systematic instruction in courses; (2) Preparation of bibliographic aids and other needed publications; (3) Casual consultations. These are described in order.

1. SYSTEMATIC INSTRUCTION is given in three courses as follows, each with a distinct aim :

a. *Course on " How to Locate Educational Information and Data."*

The consultant's chief instructional work is given in this laboratory course without class meetings. It is conducted by means of a text (4), an accompanying set of library exercises (2), both especially prepared for this course by the instructor, and individual consultations. The idea is to save students time, since they can read three times as fast as they can listen to lectures or discussions and take notes, especially on exact bibliographic data. The exercises contain a wealth of questions so intriguing that most research students or educational practitioners who see the questions, wish to know the answers. Many whole exercises or parts of them may be focused upon any pertinent problem of the student at the time. Many students thus centre all their work in the course upon their doctoral dissertations (Ph.D.) or project reports (Ed.D.). A student ordinarily takes exercises or parts equivalent to half the total, but some students desire all. Once in a great while an undergraduate who has heard of the course from former students desires to take it. The selection allowed makes this easily possible, but the instructor exerts no effort to secure such a student.

By the end of the course the instructor has definite evidence on what the student can do in the way of analysing and setting up a problem, laying out the advisable library work, doing exercises at his own pace, taking an examination under a time pressure, and synthesising his experiences to show he can apply them in his future work.

The course can be taken at any time the Library is open and the consultant is in residence—all the regular session and half the summer. Half the work requires about two weeks of full time. Students take it at various periods, some concentrating on it at week ends or in vacations. Of the students taking the course, comparatively few do all the exercises.

For complete details, see the prefaces of (4) and (2).

b. *Section of Course in Methods of Educational Research.*

In this course given by staff members of the Division of Educational Research and Measurements, the consultant has a section on research methods with library materials. Here the student takes some problem of interest to him, say his tentative dissertation problem (Ph.D.) or project report (Ed.D.). He focuses his work upon this interest and presents his results in a digest of the researches to date on some narrow phase of his problem, practically ready to print. Like the main course, this one is taught by mimeographed or printed directions, and consultations.

This section is admittedly only a short-cut training for those who cannot or will not take more. As far as it goes, the section seems profitable for the students, some of whom are stirred by it to see their need for the main course.

c. *A Course in Bibliographic Research for Special Areas in Education.*

This course, for which the main one is a prerequisite, consists of individual work on problems of at least departmental width of interest, and not on the student's own special problem. It is an extension of

the service to the profession started by the writer years before he was a member of the library staff, in his educational research pamphlet (3). The class, originally limited to ten students, and now to five, has produced over twenty short needed guides to the professional literature of special phases of education. The first was on Negro education and the last to be published is on rural education. A list of the guides with places of publication to the spring of 1935 appears on pages of 165–7 of (4). The aim is to publish each guide in the periodical most likely to reach readers in that area. A list of later guides completed, published, under way, or projected may be secured from the library professor.

2. Preparation of Bibliographic Aids was from the outset seen to be necessary to the success of the consultant's work if he were to train any material number of students with any appreciable speed. These aids so far have been the guides described in the preceding paragraph, the publications given under his name in the bibliography for this article, and the Research Index (card file) in his office.

The *Research Index* furnishes any doctoral candidate in a few minutes with clues which will give him a good start on running down library materials on any educational problem of interest to him. The Index is an extension to other fields and a bringing up to date of the consultant's educational research pamphlet (3) which specialised on administration of schools and is no longer revised. A typical Index heading will list at least the following : A bird's-eye treatment ; an extensive treatment ; a history of the topic ; a brief selected bibliography ; an exhaustive bibliography ; pertinent statistical sources ; lists of researches published, completed but unpublished, under way, and needed ; curriculum or methods-of-teaching bibliographies where applicable ; notes on forthcoming reports or publications likely to supersede important previous references ; notes on directories or lists of names important for that field, and the like. The Index gives only references to the items ; it does not contain the bibliographies themselves.

The Index is indispensable for the consultant's work with his students, on his own studies, and in answering mail inquiries. Often all he needs to do with a casual caller is to point out the suitable headings in the card file.

3. Casual Consultations.

There are hundreds of these a year with faculty members, doctoral candidates not taking the consultant's courses, students taking the independent study work in the August–September intersession, of which the consultant is director, and visiting research workers and staff members. Mail requests for advice on locating suitable library materials for various educational projects are increasing steadily. The last mail request was from a state survey director who wished to know about state education buildings. The resourcefulness required for this work may be illustrated by a recent request from one of the other consultants for a clue to a paper on Inferences from Statistical Data, by Charles S. Peirce. The writer happened to remember from reading a book several years ago, that this writer was probably a close friend of William James at Harvard. It quickly proved to be

the right clue, but without it all special library knowledges had not located the reference.

Results of the Service

The best evidence of the worth of the work is that practically all the consultant's students come on the advice of his former students or faculty advisers. The instructor has had enthusiastic comments from many faculty advisers and from most of the students concerned. The latter especially appreciate concentrating on their own problems. They almost universally regret that they did not have the work years ago, particularly at the start of their graduate work. They frequently recommend that it ought to be required of all doctoral students, sometimes of all graduate students. The chief drawback is that too few students take the work. The main course in the past year reached 125 students and the section on the Methods of Educational Research had over thirty more. But the combined enrolments did not equal half the doctoral candidates for that period. The instruction will never appeal to those students who like to talk about doing library work rather than to learn how to do it. The enrolment will not increase markedly until more students and their advisers are willing to allow it the necessary time in student programmes. Mail requests for the bibliographic aids and publications indicate they are meeting a distinct professional need. In fact, the consultant was asked to prepare several of the guides so far done.

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   Each issue is devoted to a different subject :

   No. 1. Book reviews.
   No. 2. Dictionaries.
   No. 3. Biography.

No. 4. Government documents.

No. 5. Library materials for the study and teaching of English.

No. 6. Library materials for the study and teaching of history—Part I.

No. 7. Library materials for the study and teaching of history—Part II.

No. 8. Statistics needed in educational work.

No. 9. Library materials for the study and teaching of science.

No. 10. Library materials for the elementary school teacher.

10. Witmer, Eleanor M. and Feagley, Ethel M. A beginner's guide to bibliography with examples drawn from the field of education. 2nd. ed. rev. New York, Teachers College Library, Columbia University, 1935. pp. 32.

(*Continued from* p. 51)

Mr. Flack closed his remarks by asking the speaker to say quite frankly whether or not the American librarian who had given several years' attention to the instruction of university and research students would be prepared to admit that the scheme was an unqualified success.

Mr. B. M. Headicar said that there was much to be learnt from the papers which had been submitted. The main difficulty with which we were faced was the fact that we had not the colleges in great numbers, and those that we had did not usually possess anything worth calling a library. What struck him as the first necessity was to obtain greater and better use of our libraries by making clear where a library was. Several cases, he said, had been noted in the Press of recent months where the local authority had boomed its great idea of having its library floodlit. This would have been more effective if those libraries concerned had had some means of showing, from outside, what building it was. Floodlighting was not much use on a building which did not possess its name anywhere on the exterior fabric. In regard to universities and colleges, Mr. Headicar considered that the work of instruction in the use of a library should first be applied to the teaching staff, there being no greater sinners in the misuse of the library in many institutions than the lecturers concerned. If each of these individuals were compelled to pass an examination on the rules of the library, it would be mutually advantageous to the library. He believed that lectures to new students on the library and its regulations were now a feature in many universities and colleges, and considered that these would be much more beneficial all round if attendance at them were made compulsory for all freshers. The papers that had just been presented had shown how much could be done and the way to do it. We were indebted to America for much of the improvement in library technique in the past, and it was evident that there were many ways in which we could still follow and copy American practice if the best were to be obtained from our library services.

Professor R. S. Hutton drew attention to the resolution passed by the ASLIB Conference in 1930 asking the authorities of all institutions of higher education to provide schemes of instruction for students in the use of the library. The present accounts of progress in the U.S.A. raised the question—What was actually being done in this country? Mr. Peyton Hurt's earlier publication gave a description of the results of an examination of the staff and graduates of the University of California, which confirmed Mr. Headicar's view that the teaching staff in a university were unfitted to give adequate instruction in the use of a library and its reference facilities. It was to be hoped that university librarians would institute such courses or appoint some member of their staff as a "public relations officer" to deal with the "orientation" of freshmen and senior members of the universities.

Mr. Charles Nowell said that he was most interested to learn from Mr. Flack that two-thirds of the universities in England provided instruction to students in the use of books and he would welcome further details of the extent of this work and the method used. He questioned, however, Mr. Flack's assertion that the specialists could best train the student in the use of the library (as against the librarian) and doubted the ability of heads of departments of the university to give instruction in the use of the library. He agreed with Mr. Headicar and Professor Hutton that teaching staff in general did not use the libraries properly themselves. He criticised especially Mr. Flack's statement that librarians, before this century,

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Instruction in the Use of Books at Stephens College

By B. LAMAR JOHNSON
Stephens College, Columbia, Missouri

Four years ago at Stephens College* an experimental library programme was set up with three objectives.

First, to make the library the centre of the instructional programme.

Second, to guide and encourage the recreational reading of students ; and :

Third, to teach students how to use books effectively.

It is the purpose of this presentation to discuss the third objective of our library programme, namely, to teach students how to use books effectively. In any programme with an objective as broad as the one upon which this paper is based, it is necessary to break down the objective into its components. In other words, there comes the question, What do we mean by the ability to use books effectively ?

At Stephens College we interpret this ability to include the following :

First, the ability to use such mechanical features of books as the index, the table of contents, maps, tables, footnotes, etc.

Second, the ability to use such library and other reference aids as the card catalogue, the Readers' Guide to Periodical Literature, dictionaries, encyclopædias, etc.

Third, the ability to read silently with understanding and with a reasonable degree of speed.

All too often programmes of instruction in the use of books include only the first two abilities mentioned above (instruction in the use of the mechanical features of books and instruction in the use of basic library tools) and omit entirely instruction in silent reading. Programmes with such an omission are neglecting one of the most vital aspects of instruction in the use of books. The student who knows how to find the chapter, the article, or the page for which he is looking and is unable to read that which he has found has failed to learn how to use books effectively.

Although it is the purpose of this presentation to discuss the objective of our library programme relating to instruction in the effective use of books, it is necessary to refer also to the other objectives of our library programme, namely, those relating to the library and classroom instruction and to the library and pleasure reading.

It is a truism to state that if a student is to learn how to use books effectively he must actually use them and not merely think about or study about how to use books. In other words, extensive use contributes to learning how to use books. If we succeed in making the library the centre of our instructional programme, and if we succeed in stimulating pleasure reading, our students will of necessity use books extensively. Obviously, it is particularly at this point that the other

* Stephens College, located at Columbia, Missouri, is a junior college for women with an enrolment of 927 students from thirty-eight states and two foreign countries.

objectives of our library programme relate to our purpose of instructing students in how to use books.

In relation to making the library contribute as effectively as possible to the instructional programme of the college every effort is made to adapt the library to the needs of each teacher and of each class which he teaches. In other words, at Stephens College we have no single pattern of library administration; rather we aim to adjust our library and its organisation to the demands made by each course offered in the college. This flexibility has resulted in the establishment of classroom libraries, of division libraries, of departmental office libraries, and in the use of library reading hours (classes spending class hours in one of our libraries with the instructors present).* These and other adaptations which our library is making to the instructional needs of the college are (1) making it possible for teachers and students to work together in the presence of books, and (2) encouraging the extensive use of books for instructional purposes. These conditions in our opinion contribute materially to the attainment of the objective which forms the basis of this presentation.

In encouraging pleasure reading such devices as book posters, book lists, and book talks are used. Perhaps, however, the most effective means of stimulating pleasure reading have been our attempts to make books a natural part of the environment of students: We place books not only in our general library, in division libraries, in classrooms, and in department offices, but also in our dormitories, in the college infirmary, and in individual student rooms.† Open shelves (including open shelf reserve book sections) are used throughout all libraries. Dormitory and classroom libraries are open at all hours of the day or night regardless of whether a librarian is present. A student wishing to borrow a book from one of these libraries simply selects her book, removes the card from the pocket, signs her name on the book card, and places the card in a small box provided for that purpose. This complete freedom of access to books is much appreciated by students, and the loss of books resulting therefrom is negligible.

It is significant to note from the viewpoint of the effective use of books that the circulation of books from our libraries has more than trebled during the opening four years of our library programme. In our opinion this increased use of books cannot help aiding in developing an improved ability to use books effectively.

In addition, however, to this indirect attack on the problem, we are attacking it directly. Since our concept of instruction in the use of books is broad it is obvious that our activities in providing such instruction will be varied.

(1) Major responsibility for instruction in the use of books is placed upon instructors of all courses. Instruction in how to use books is made a regular part of regular class work and it is not set up as an end in itself. In other words, such instruction is offered at such a time

* For a more complete discussion of these and other aspects of our library programme see: Johnson, B. Lamar, "Books all around them," *School and Society*, 41: 676-81, May 18th, 1935; Cowley, W. H., "A pioneering college library," *Journal of Higher Education*, 7: 78–86, February, 1936.

† The placing of book collections in individual student rooms is a development to be experimented with during the 1936–1937 school year.

that it will assist the students in solving problems which they are at that time facing in connection with their regular class work. For example, instead of informing a class that they will now study how to use the card catalogue and the Readers' Guide, an instructor will make an assignment (perhaps the preparation of a bibliography or the writing of a paper) and will then discuss with the class aids to gathering material. Out of this discussion will develop naturally a consideration of and practice in using such aids as the card catalogue and the Readers' Guide.

(2) In order that we may be certain that all students have had instruction in the use of books at the opening of their college course, the teachers of our introductory courses in English and social studies give their students experience with basic library tools and with the mechanical features of books during the first ten weeks of school. This instruction is not given as an end in itself but rather as an aid to the preparation of regular class assignments.

(3) During the opening two weeks of the school year each new student is taken through the college libraries by a member of the library staff. At this time preliminary instruction is given regarding the location of books and regarding the use of library aids. It is important to note that this instruction is merely introductory to that which will later be given by instructors in their classes.

(4) Results of studies made at Stephens College indicate that students who rank average or higher on reading test scores profit more from instruction in silent reading than do students with lower test scores. For this reason we provide instruction in silent reading for all of our students—not merely for those with low scores on reading tests. Instruction in silent reading is given as a part of regular class work. The specific methods and devices used vary from course to course. Among the devices most used, however, is the timed reading exercise (material relating to course content) followed by a comprehension test. These and other exercises (relating to vocabulary development, for example) are particularly stressed in our introductory courses in English, social studies, and natural science.

(5) Since we stress the responsibility of regular teachers for giving instruction in the use of books, it is essential that our instructors know how to offer such instruction. This is a problem upon which we work through faculty meetings, through group and individual conferences, through mimeographed bulletins, and through faculty committees. Work in this area is carried on continuously, for in a programme such as ours teachers must constantly be aided and stimulated to the end that they may guide their students in learning how to use books effectively.

(6) As our programme develops, we are finding a number of students who need instruction in addition to that provided in regular class work. These students are usually aided by their instructors. In some cases, however, extended remedial instruction has been found necessary. Accordingly, groups for special remedial instruction are organised as the need arises.

CONCLUSION

There are at least two essential aspects to the learning of every skill : first, there must be extensive practice of the skill to be mastered ;

second, this practice must not only be extensive but it must also be correct. The application of these principles to the Stephens College programme of instruction in the use of books is obvious : the extensive use of books is involved in our regular instructional programme, and this use of books is supervised by an interested faculty organised to study and work on the problem.

If a programme of instruction in the use of books is to succeed, it must be based upon a feeling of need on the part of the college administration, the faculty, and the students. At Stephens College we regard the library staff and the teaching staff as one unified instructional staff, the librarian holding the dual position of librarian and dean of instruction. The natural result of the recognition given the problem by the college administration in providing this organisation is the provision of the two essentials for learning a skill : extensive practice in the use of books, and correct practice in the use of books.

The results of reading tests and tests in the use of other library tools indicate that we are making progress in teaching our students how to use books. We believe, therefore, that we are proceeding in the right direction. We do, however, recognise that we have not yet attained our objective and that we must continue our efforts.

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dozen that stood near it on the library shelves. He would also explain the use of the principal reference books, such as *Gross : Sources and Literature of English History,* and so the student became familiar with books and the methods of finding them and using them in his own particular sphere, and who could better train the student than the expert in his subject ?

The last twenty-five years, Mr. Flack pointed out, had seen a great change in librarianship. It was admitted that a university and research librarian must possess a degree as well as professional qualification. There were, therefore, in charge of academic libraries persons who were capable of instructing the student. No librarian, however capable, could be expected to deal with every subject with equal thoroughness. He might be able to guide the student in library methods and books and reading in, say, the physical sciences or classics or literature or mathematics, but how many librarians were capable of giving a thorough training in all these subjects ! Mr. Flack considered that we were very far behind the American methods in this direction and that something had to be done on the lines so ably expounded to us, but that we had first to decide who was the best person to give such training—the librarian, or the heads of the individual departments ? He believed in co-operation between the two and felt sure that this was the only method which was going to prove satisfactory. The librarian should give general instruction in the use of the library so as to fit the student for the use of any library, and make it possible for him to pursue library research in studies other than those which he had been pursuing for his degree and leave the training in the use of the library for his degree subjects to the head of his department.

Mr. Flack admitted that library instruction in this country was inferior when compared with the excellence of the methods in America, but feared that it would never develop to any great extent while the curriculum of the student remained as heavy as it was to-day. The English university student found his time so completely full with his ordinary studies that one would hesitate to add even one hour a term to his lectures. It might be argued that his time would be saved in the long run because he would know how to set about his work, but it appeared that, from the student's point of view, an organised course of library instruction would be an unwelcome innovation. Dr. Norwood, in his address on school libraries, had pleaded for free time for scholars to enable them to browse in the library : how much more necessary it was for the student to have time to spare to browse in the library.

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Experiments in Library Instruction at the University of Rochester.

By DONALD B. GILCHRIST, *Librarian.*

It scarcely required the spectacular demonstrations of Mr. Peyton Hurt, of the University of California, to persuade college and university librarians of the need of formal instruction in the use of library tools for students in institutions of higher learning. His reports, however, have been most effective in focusing serious consideration on the remedy within his own faculty; and the results of his new courses will be watched with great interest by many other institutions.

Few university librarians in the United States have worked very intensively toward a solution of these problems; fewer have overcome the resistance of administrative officers and faculties to the imposition of additional fixed requirements which special courses in library work imply if required of all students; fewer still have made elective courses sufficiently popular, or sufficiently important to build up large registrations.

In some of the graduate schools, notably at Columbia, Yale, and Harvard, voluntary or compulsory courses and seminars in the bibliography of special fields—law, romance languages, and history among others—have been introduced. Several manuals, prepared as textbooks for such courses, have resulted. Dr. Hick's *Materials and Methods of Legal Research* and André Morize's *Problems and Methods of Literary History* being interesting examples. Such courses, taken within a department of specialisation, under scholars who are bibliographically minded, appear to be highly practical and successful in providing sound bibliographical foundations for embryonic scholars and future professors. Such courses could be offered by libraries only when specialists on the staff were competent for effective teaching, and, even then, the vital connection between bibliography and the subject in hand would be broken.

The question of how to interest the undergraduate in acquiring the elementary technics of using a library, and of acquainting himself with general reference and bibliographical tools, is quite another problem, and one which even less frequently seems to have been done successfully. At Rochester for some fifteen or more years the procedure has been as follows:

At the beginning of the freshman year the librarian has had from one to three hours in which to address the freshman class, or meet them in smaller groups.

During the course called *Rhetoric I*, which virtually all freshmen are required to take, four to six weeks are devoted to a library problem intended to familiarise the students with the methods and some of the tools commonly used in assembling references on essay topics. The preparation of a selected bibliography and the writing of a paper based on reading from it completes the project.

This seems to me an ideal plan. The practical application of the study is at once evident to the students, and its introduction into a

rhetoric course logical and easy. In both phases, however, there are certain difficulties, continually in evidence, which perhaps merit some particulars.

After a number of years of experiment, the introductory lectures to the full freshman class by the librarian have been reduced from three to one, and a library visit in groups of fifteen to twenty added as a regular and satisfactory part of the programme.

Here, as in a number of American colleges, we have what is known as *sub-freshman* week. The entering class is assembled on campus one week before upper-classmen arrive and before the regular course meetings get under way. The purpose is symbolised by that happy new pedagogical word not altogether threadbare yet—*orientation*. These men and women, fuller of enthusiasm for learning and education than most of them will ever be again, are lectured twice a day for six days by the president, the dean of the faculty, the dean of the college, the class advisor, the treasurer, a professor of education, and the university librarian.

Such topics as " Objectives of a college education," " University organisation," " College traditions," " How to budget time," " How to study," " How to take notes," " How to keep out of financial troubles," are developed *in extenso*, and the librarian does well to follow the whole series carefully before determining just how much can be endured on the subject of how to use the library.

The freshman's time is also consumed this same week by placement tests in English and foreign languages plus psychological, reading, and physical examinations, so that relatively little time is left for reflection. A certain amount of acute mental indigestion may usually be expected, and a certain decline in the intensity of the attention given to the lectures as the programme progresses. A position on the schedule previous to Thursday is highly desirable.

Commencing several years ago with three lectures covering with great concentration the matter for an extended manual on college libraries, the present librarian was conscious of failure to convey to the students much of what he said. The recommended supplementary reading was done by not more than ten per cent of the class, and there was no reasonable penalty to be attached to delinquency in so relatively minor a matter. Students listened with interest to remarks on the picturesque history of earlier library days. They heard with respect the exposition of regulations, and, with an air of patient endurance, the enumeration of departmental organisation of the staff and statistical data. However, signs of impatience and a positive resistance became evident among the less soundly disciplined in self-control at an early stage in the critical evaluation of bibliographical and reference tools. Tests given for a few years at the close of the lectures indicated quite clearly the general accuracy of these statements, and convinced us that sub-freshman week was not the time and place to go into much detail. A consoling colleague, on the occasion of another public speech, decidedly unsuccessful, conceded that it could have stood a little more baking powder (or do you in England use cream of tartar and soda ?). That hint may have had its effect, too ; but in any event the lectures are now reduced to one for sub-freshmen, and that one designed pretty much to convey a general impression : that the library welcomes the new men, is eager to be of service, that size and the

variety of demands on the collection imply systematic organisation, regulations and co-operation on the part of users ; and that further study of systems of classification, methods of cataloguing and reference tools is highly desirable if efficient use is to be made of libraries. Hutchins' *Guide to the Use of Libraries* is recommended for further study.

As an introduction and a welcome this is more satisfactory than more meaty food, and, it seems to me, more properly fits the occasion. After my lecture last fall one of the students was heard to remark to another :

" That librarian is sure proud of his library."

Possibly, but scarcely of his ability as a public lecturer. Sound training in the *art* of public speaking, in the absence of unusual natural ability, might well be given more attention in American library school programmes or in the universities. I suspect you do it much better in England.

The library visit plan works very well. Various members of the staff are detailed to serve as guides. Groups of fifteen to twenty are shown the various reading rooms, workrooms, book stacks, and special collections. A running comment, with an opportunity for informal questions and answers, gives the students a better chance to fix a few details in their minds than any amount of lecturing. Registrations are made out, mimeographed rules are distributed, and attention called to special exhibits illustrating methods of cataloguing and classification in use. An exhibit is also set up each fall of the various printed forms used for loan records, overdue notices, fine statements, etc. All exhibits carry extended labels, and receive careful attention from many students.

Subsequent experience with the group, however, shows perennially that only a small percentage of the many details are grasped by most students by these methods, and the circulation and reference staffs are schooled by long experience to be on the alert for opportunities to teach the use of the library to individual students in day-by-day contacts throughout their college residence.

The second step here at Rochester is a part of the programme of the Department of Rhetoric. Classroom groups average twenty-five to thirty, and a corps of instructors are involved. We have been fortunate in having for many years as head of the department Professor John Rothwell Slater, whose appreciation of the value of training in the use of the library is real and informed. He wrote the textbook used in this course and devotes forty pages to a chapter entitled " How to Use a Reference Library." * Our staff had a hand in revising the last edition, and most of the descriptions of library technics follow our practice.

Sections on general reference books, dictionaries, encyclopædias, special encyclopædias, biographical dictionaries, and other common types give general characteristics and specific titles. Principles of classification and cataloguing are presented briefly ; correct forms are given for making a bibliography, and considerable attention is given to evaluation of books. Best-book lists, periodical indexes, public

* Slater, J. R., *Freshman Rhetoric*. N.Y., Heath & Co., revised ed., 1922. pp. 107–48.

documents and special bibliographies are explained and illustrated, and suggestions made for note-taking.

It is a happy feature of this plan that actual practice goes along with precept. Class reports are made by the students on the various assignments, including a bibliography of both books and periodical articles. The work is checked by more practised hands and revised by the students.

The library's part in this process is not inconsiderable. The whole freshman class descends upon us almost at once, and they require a good deal of help in finding their way around, particularly at the card catalogue. A special reference assistant usually gives her full time to this work during the development of the project, and cataloguers are drafted to give explanations at the public card catalogue. Such a programme does get results. Use of the library is more effective for a majority of the students thereafter, but no quantitative measurement of the improvement seems possible. Some students profit little from the exercise. It is not as effective as a more extended course might be made, and the care with which the work is supervised by the different rhetoric instructors varies considerably. However, it is decidedly better than nothing, and, viewing the student freshman programme as a whole, possibly requires as large a proportion of the student's total time as the subject warrants.

Whatever your individual opinion on the question of proportions may be, I doubt that any of you will disagree on at least this point, which is a positive conviction based on our experience: Teaching the use of a library is a laboratory course, and without daily practice, coupled with verbal and written instruction, nothing significant is likely to be accomplished. We hope to continue our present programme, but are constantly seeking to improve it, and to keep the content strictly up to date.

The matter of instruction in bibliography for advanced students has not been dealt with at Rochester. Graduate work for the master's and doctor's degrees is, as yet, a minor activity, and there is little for us to contribute to the discussion of those problems, though to my mind they are even more important than the problems of undergraduate instruction.

DISCUSSION.

The Chair was taken by Dr. H. H. E. Craster, Bodley's Librarian, who opened the proceedings by introducing the speaker, Miss Granville Meixell, the Librarian of the Applied Science Library at Columbia University. Before presenting the papers by the various American contributors, Miss Meixell conveyed greetings to ASLIB from the American Library Association. Referring to the President's opening address, she commented on the rapid development of school and college libraries in America, and contrasted present conditions with those which had existed in her own preparatory school in Baltimore. She then introduced the various papers and summarised them. In her closing remarks Miss Meixell described the special course organised by the Special Libraries Association in New Jersey to train librarians and research officers in library technique, and the course in the School of Engineering at Columbia University. The latter was started at the request of the students and began as isolated talks given to classes by the Librarian. To-day this course is required for graduation and first-year engineers have five lectures in classes of about twenty-five students.

Before throwing the meeting open for discussion the Chairman said that he felt

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he was present at the Conference under false pretences, since the Bodleian Library was neither a Special Library nor an Information Bureau. We in England were always ready to learn from America, who led the world in Library Science. We had realised the importance of libraries, but not fully the necessity for training the library user. Instruction in some form was necessary for readers, but this must, of necessity, vary with the type of library and the type of reader. The question was whether the instruction should be individual or whether it should take the form of courses. In America there was more differentiation between librarians and information officers (or reference librarians) than in this country. Another question of vital importance, the Chairman said, was whether the instruction in the use of libraries should be given in the library or outside, and whether it should be given by the librarian or by another teacher.

Mr. G. Ellis Flack said that the papers presented by Miss Meixell showed most clearly that, where instruction in the use of libraries for graduate and research students was given in American Universities and Colleges, it was given with that thoroughness and zeal that was so characteristic of the American library system. The extensive and comprehensive cataloguing, indexing, guiding, that was such an outstanding feature of American Libraries had no comparison in this country, and Mr. Flack felt tempted to ask the speaker whether this training in the use of libraries had been the outcome of the complicated library system. The papers which had been read had detailed extensive courses for training students in the use of a library, and it was certainly the opinion of teachers in the United States, judging from the remarks which had recently appeared in one of their journals, that no small part of the blame for masters' theses and doctors' dissertations not always having been of the highest calibre must rest on the failure of graduate schools of education to provide instruction in library and research methods for their students. That statement must have called all librarians to attention. Were masters' theses and doctors' dissertations of poor calibre in this country because little or no instruction in the use of libraries was afforded to the British undergraduate or research student in the use of his library ? Only in sixty-five per cent. of the university and research libraries in this country was any attempt made to give instruction in the use of the library, and except in a few instances that instruction was little more than a guide to the use of the particular library in which the student was working, but slowly the position was being improved. The approach, however, was rather different from the methods already outlined.

He concluded, from the papers presented, that although there were school libraries in the States, they did not afford the potential student sufficient information regarding the use of a library to enable him to find his way when he entered a university library. We had heard from our new President, the evening before, an outline of the position of the school library in this country, and Mr. Flack quoted as an example a secondary school that he knew, where a boy left school with a thorough knowledge of how to use a library, not just how to read or how to take care of a book, but how to find books in a catalogue, how to use bibliographies, and how to use indexes to periodicals. He received guidance in his reading and, by taking turns in acting as librarian, became familiar with the routine methods of a library. The matter was treated so seriously that the ordinary school examination papers contained questions which showed whether the pupil knew, for example, what books he could find in a certain class and the best books on a particular subject. So that, when the scholar became a university student, the size of the library no longer appalled or bewildered him, and he quickly accustomed himself to his new surroundings and was as familiar with it as with the library of his school-boy days. These school libraries, however, were by no means general throughout the country, and many students still entered a university without a knowledge of a library or how to use it ; and so instruction in the use of the library had to be given to almost every new student in a university or college. Unfortunately, however, the subject was receiving very little attention in our universities and colleges. Too often it was left to the librarian or the head of the department under whom the student was studying to guide the novice along the right path. Librarians and their assistants were always ready to help a student in difficulty ; many heads of departments coupled some form of library training with their lectures. The Professor of History would tell students how to use the catalogue, how to find books on the shelves, why he recommended one particular book on the Civil War out of some half-

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Collection of Information for the Commercial Pages of a Great Daily Newspaper.

By W. H. JOHNSTON, of the *Yorkshire Post*.

In Mr. Harold Nicolson's *Public Faces* the Prime Minister is represented as saying: "I am sorry to have dragged you people down here. . . ." That is rather how I feel towards my audience; I have a sort of sympathy, not unmixed, though, with the hope that this morning may not appear wholly wasted when I have done.

The best way to approach my subject will be, I think, first to mention, one by one, the chief items of which the *Yorkshire Post* commercial columns are made up, and then to deal with each in turn. The chief items are, then: the City Columns, the Markets, and the foreign matter. A very important and bulky item, which accounts for about one-third of the space occupied by the commercial matter, is the Stock Exchange list. It stands more or less apart, and I shall deal with it separately.

To begin, then, with the City Columns. They consist in the main of the column bearing the self-explanatory heading "Financial Notes and News"; of a column or so dealing with the day's London Stock Exchange; and of the Money Market Report. All these emanate from the City Office, together with a number of news items dealing with such things as appointments to one or other of the big companies and the like.

How does the City Office work? It opens officially at twelve, though junior staff arrive half an hour earlier to deal with correspondence, etc. At noon the City Editor and his assistants arrive, having already between them been through the financial papers and the financial pages of the leading dailies for any points that may seem worth following up. Arrangements have been made on the previous day for any exceptionally important company meetings, likely to yield interesting information, to be covered. Most of these begin at noon or just after. Between noon and one p.m. most of the City staff are engaged in gathering information on subjects suggested by the morning papers or by the postbag.

Instances of information gathered by the City staff from points in the morning papers have naturally not been so numerous during the holiday period, and occasionally, of course, we draw blanks, but three or four recent instances occur to me. On August 21st we published details of the Lane Fox flotation, which had been suggested in one of the morning papers as likely to occur. We were able to get the necessary information from one of the underwriting firms. On the next day we were similarly successful with the Vosper flotation, though later in the day the news was given to all the papers, so that our information was unfortunately not exclusive. Still, we have to put up with that sort of thing. We have followed closely the negotiations in connection with the falling-in of one of the concessions of the Nitrate Railways Company in Chile, and the information published on August 27th was secured as the result of a hint in a morning paper.

On August 26th the Spillers news was secured early on the previous day, but here again, unfortunately, the news was forwarded generally to the Press in the late evening. The note on Poland Sevens on August 29th was inspired by a morning paper " par " and the information about sinking-fund purchases was secured from the Polish Consul.

Between 2 and 2.45—you will note here a gap, which you must imagine as filled with a well-deserved lunch—the work begun at noon is completed, and at 2.45 those members of the staff who deal with the money market begin their rounds. Banks, discount houses, foreign exchange experts, and bullion brokers have to be visited. This is not merely routine work. It may be that on their rounds our people find that a large line of bills is being placed by one of the big corporations, that one of the foreign exchanges is exceptionally active, or that there is a big movement in silver or gold. Full information and, so far as is possible, adequate explanations on these and similar points are required, and being experienced men our staff know exactly where to go to get it. The matter so obtained is sifted in the Office. Most of it is placed at the disposal of the man writing the Money Market report, but if there is anything of special importance the City Editor deals with it himself in his notes.

At about 3.45, just before the Stock Exchange closes, Members with whom we are in touch in the House send in information obtained from the notice boards in the Stock Exchange itself, a good deal of which is not obtainable elsewhere. At 4 practically the whole staff goes on its Stock Exchange rounds. Often this involves a score or more visits. Information on big price movements has to be obtained from brokers and jobbers, as well as closing quotations from the News Agencies, underwriting firms, and brokers handling important schemes have to be interviewed, and so on. This work is not completed until 5 or after, and sometimes the City Editor returns only to find that he has been summoned by telephone to go to the office of some broker or finance house which has to offer or may be asked to give interesting information. By 5.30 it is generally possible for members of the staff to get down to the work of preparing the " copy " for the paper. Matter, however, continues to come in from the publicity agents. It is carefully sifted by a senior member of the staff, who decides what is important enough to be dealt with by the City Editor—also to discard what amounts to nothing more than an attempt to get free advertising. A matter of sheep and goats. Where there is any doubt, the Chief is of course consulted. Soon after 6 the last of the foreign exchange information comes in and is dealt with, but the work of preparing " copy " for the paper is rarely finished before 7.30 to 7.45.

You will note that the City Office works to a time-table. This is of course necessary, for the matter has still to be sent (by private wire) to our Head Office at Leeds, where it is desirable to have it dealt with as early as possible in order to leave time free for any extra-routine matter that may crop up.

You will also note that while the sifting, digesting, in short, the editing of the matter, is largely a matter of routine, the actual obtaining of it is not so. Part of it is thrust on the City Editor by publicity agents : the rest is gathered by a system of personal contacts. How

these contacts are established and made use of it is hardly possible to describe in general terms. A City Editor is largely in the position of a Correspondent in a foreign capital, or like a diplomatic representative. He must have the sense of atmosphere ; he must be able to feel things at his finger-tips (as they say in Germany) ; he must be able to interpret the surface of events ; he must have a balanced judgment. If he has these, his round of visits will yield fruit : if not, not. Routine organisation can here at most provide a time-table.

I now come to what I have comprehensively called markets. This part of our commercial news embraces a very varied series of reports. At one end of the scale we have the London Overseas Produce report, which may run into well over a column, and the reports from the Bradford Wool Market or the London Wool Sales, which occupy a good deal of space ; at the other end there are things like the Sleaford egg and butter market, which are covered in a couple of lines of small type. I may mention in passing that the *Yorkshire Post* probably has a fuller service of these provincial market reports than any other paper in the country, and that they really do what is called " fill a want "—or, at any rate, what would otherwise be felt as one. Certainly these reports are a source both of bouquets and brickbats. Thus we have a reader writing in from Kettering and saying: " Sir, Your Leeds Leather Fair report re Indian hides, sole leather, etc. is sound and comprehensive. You have also touched on the warble fly . . ." On the other hand we have a man writing in and asking what we meant by not publishing the price of grilse : he was only pacified when we pointed out that we did in fact give this particular market under the head of Salmon.

Now as to the actual manner in which the markets are covered. For the most important centres salaried members of the staff are employed, some of whom work with one or two assistants. In the smaller centres we have so-called linage men, which means, of course, people who send in reports and are paid so much per line—per line eventually printed. The linage men generally work in the smaller centres, where there are perhaps two markets a week—places like Driffield, Market Weighton, Spalding, Boston. Sometimes a journalist is able to make a living by confining himself to this kind of market work ; but in the very smallest centres arrangements are made for the reports to be sent in by somebody who is in touch with the local markets by virtue of his business and sends in these reports as a side-line ; for example, the local newsagent. That may surprise you, but very good work is often done by these people.

Apart from these men, there are the smaller news agencies—smaller, I mean, by comparison, say, with Reuters or the Press Association, or the Exchange. These firms differ from the big agencies in that they specialise in news from one centre which they distribute to subscribers, whereas the big agencies, of course, gather news from all over the world, this news coming together at one centre whence it is redistributed. These smaller agencies consist of, say, three to six people. The members of the firm go into the market. They talk to the buyers, as well as to the sellers, because of course they must know what prices are being offered as well as asked. They find out what transactions have taken place, and in short obtain a general picture of the day's transactions. On the strength of this they compose

their report. Some of these people, I may mention, are extremely well-informed experts on their particular market. One Grimsby firm, which is practically a one-man show, makes several thousands a year by distributing the Grimsby fish and herring fishing reports.

The actual physical manner in which the reports reach us is this. Some are telegraphed, but the majority come by train as parcels—the G.P.O. does not enter into the transaction. The advantage of dealing with commercial news is, of course, that markets close at some definite hour, generally not too late in the afternoon. A complete report can then be written without fear of later developments. The report is placed in the train and is collected by one of the paper's messengers on arrival at Leeds. Unavoidable postal delays are short-circuited in this way, and, on the other hand, telegraphic expenses are avoided.

So much for the markets. Let me now say a few words about what I have called foreign matter. It consists of such features as the New York Stock Exchange report, the Paris and the Berlin Bourse reports, and certain of the overseas commodity markets. For this class of news we rely on the big news agencies. If I am to say how we organise the collection of this type of news I must evidently go one step further and say how Reuters (for example) organise it. Essentially, I think I am right in saying, their methods are, as they could not well avoid being, the same as those we employ for our local markets, only, of course, on a grander scale. At every vital point abroad they have their experts on the spot, who are conversant with their markets and who provide an objective report. The entire mass of news gathered by Reuters is concentrated at London and thence distributed. This may appear rather a summary way of dealing with an important part of our service, but in principle, I must repeat, there is little difference between the collection of commercial news from the market, say, in Wall Street and that in a provincial town.

From what I have been saying it will have become apparent that the news carried by the paper might be classified according to its source : according as it came from our own people or from agencies great or small. Of course it is also possible in certain purposes to adopt a mixed system, and this is done for the very important columns headed Company Reports and Dividends. It is rather a small feature at this time of the year, but in winter it is apt to come to a full column or more. The reports we give are highly condensed statements, in which the announcements of profits and dividends are the most important part. These reports are sent either by the companies or by their publicity agents either to London or to Leeds. The matter sent to London is passed on to Leeds by private wire. Now it is a point on which readers are rightly anxious to be able to compare this year's profits, dividends, appropriation, etc., with those of the previous year : and some of the statements which we receive omit to give these figures. To make good this *lacuna* we make use of the Exchange Telegraph Company's statistical service. This agency is in touch with practically every company, whose secretaries have a standing arrangement to pass on all information, which, of course, includes annual reports, balance sheets and any dividends that may be declared. A master card is kept for each company, and this is kept permanently up to date with the help of the material thus supplied. Copies are

printed daily of all the master cards on which any additions have been made during the day, and are posted to subscribers. Subscribers thus get their information one day after the event; but that does not matter for the purpose now under consideration: what the cards are needed for in regard to the Company Reports and Dividends column is to allow us to collate last year's figures with the figures which we have received from other sources during the evening. It is in this collation of the facts and figures reported that the expert sub-editing tells. There, then, is an instance of the joint use of our own resources and those of a British agency providing current statistics.

It may not be without interest to mention that, so far as undertakings located in, or largely financed in, the United States are concerned, similar statistical and information services, such as the Standard Statistics and Moody's Investors Services, are made available here as well as on the other side. Of course, the Americans were well ahead of us at first in the elaboration of statistical records, but there is no doubt that to-day financial and commercial editors in this country are also well served in this respect.

I will not weary you with a complete list of all the publications one sees and consults; but, in addition to the many admirable and voluminous reports and statistics coming in regularly from H.M. Stationery Office—these range from the *Board of Trade Journal*, the Statistical Abstract, and the Trade and Navigation Returns, to those valuable reports by commercial attachés or consular officials concerning various countries, issued periodically by the Department of Overseas Trade—besides all these, there are such informative publications as the Bank of England Statistical Summary and the reviews issued monthly by each of the "Big Five" banks, the League of Nations' Monthly Bulletin of Statistics, and the Statistical Year Book, and, of course, those excellent weeklies the *Statist* and the *Economist*—though this by no means exhausts the catalogue of published sources of financial and economic information in frequent use.

After that digression we come to the Stock Exchange list. The gathering of this does not require much organisation on our part; but I may, perhaps, say a few words about the way in which its transmission to Leeds is organised. The lists of transactions, or "bargains" as they are technically called, are printed for the Stock Exchange Committee each day by a firm of printers who have long had the contract. We have a standing arrangement to obtain our copy at the earliest opportunity. Usually the "Official" list is out first, and copies are separately taken by special messengers both to the London Office and to the stations to be sent as check copies by the next train to Leeds. Awaiting the lists in the London Office is a staff of seven or eight. The sheets are quickly divided among these men, each of whom deals with his usual section of the market, and has in front of him the code sheets which enable him to reduce the title of the company to one or two letters.

As soon as one section is completed it is taken to the telegraph room where five operators are waiting to send over our private wire the code letters and prices at an average speed of 40 words a minute each, which means together 200 words a minute. Generally, unless there is exceptional activity on the Stock Exchange, the first of the lists reaches the London Office at about 5.45 p.m. An idea of the

despatch with which the staff deals with them may be formed from the fact that the whole of the lists, which occupy on an average, say, about ten columns, are usually in Leeds within one and a half hours from the time when they reach the London Office. The lists are then put into type and as soon as proofs have been pulled these are checked by the reading department against the copy that has been sent over the wire ; and they are checked once more when the " check lists," which, as I mentioned a minute ago, are sent up by train, are received in Leeds. This double check is pretty effective. The average daily number of bargains recorded runs into, say, 7,000 or 8,000, and any complaint about misprints is a very rare occurrence, though it is generally understood that readers keep a keen eye on quotations and do not hesitate to tell us all about any mistakes they may discover. Instances are even on record where we have ourselves discovered misprints in the Official List—but these, again, are rare.

So far I have spoken chiefly about the merely physical aspects of the commercial news organisation. But it may be worth while to say something also about the qualifications of a commercial correspondent. After all—if I may adopt Kantian jargon for the moment—the objective facts have to be mediated—and that, if you will forgive me, is Hegelian—by a subjective mind. In plain English, after the facts have been assembled, we want a full and unbiassed presentation of them.

But this is not all. A good many of our reports are written by specialists—that applies, for example, to the wool, coal, steel and iron news—and a specialist, of course, must have other than merely passive virtues. For one thing, he must be well known in commercial and industrial circles, and, of course, he must know where the information on which his reports are to be based can be obtained. It is obvious that this essential cannot be achieved in a few weeks or months, but is a slow growth which must be carefully tended if it is to survive. But to be known and to know where to look for information is not enough, though it forms the basis of operations. There must be confidence on both sides—confidence on the part of the industrialist and the business man that he can talk freely and that only discreet use will be made of the information imparted, and confidence on the part of the journalist that the source of his information is sound.

The business and industrial interests are frequently shy of publicity and desire only to carry on their operations without interference and annoyance from persons whose sole interest is one of curiosity. It is obvious that there are many transactions and developments which could not be completed and might easily be jeopardised by premature publicity ; but often these movements are of importance from a public point of view as well as being news. The journalist then has to weigh carefully the whole of the implications of such a situation, and, if he decides that mention must be made of the matter, has to treat it in such a manner that his reputation for discretion is sustained, while his reputation for being well informed is, if possible, enhanced.

More often than not the journalist is unable, without breach of confidence, to make use of all the information at his disposal, and while it is an irritating experience not to be able to publish items of first-class commercial news, the possession of the information, at any rate, enables him to avoid pitfalls.

The writing of commercial reports must be done with the consciousness that they are intended for all interested in commerce and industry, and that they must provide an adequate service for the buyer and seller, the producer and consumer. They cannot be written for one or the other—they must be written for all. You will, therefore, appreciate that whatever is published must be accurate to the best of the writer's knowledge, and that no effort must be spared to ensure that the information is correct—or the deductions drawn from it.

It follows that while the journalist must secure the confidence of his informants he must also gauge accurately the value of his sources of information. He will never, if possible, rely solely on one source—this is a point that I wish particularly to stress—but must weigh, assess, and sift each. In coming to a final conclusion he will be largely guided by his own knowledge and experience.

In the large cities and industrial towns there is an exchange or market, in which transactions in the principal local commodity take place, and here attendance at the meetings on 'Change are a vital part of the journalist's duties. Here he meets most of the town's commercial and industrial representatives, hears the latest gossip and opinion, and draws his conclusions from what he hears. Where fixed prices do not exist there is a constant necessity to ascertain quotations at which business is done and to select a mean between the views of sellers and buyers, as translated into terms of business done.

Nowadays an increasing volume of business is done by telephone, and less on many of the exchanges which may become chiefly convenient points of personal contact rather than centres at which a large volume of business may be transacted. This development will obviously make the work of the journalist more difficult.

In any case, much of his time may appear to be fruitlessly spent and to yield little actual copy, but unless he keeps himself closely informed of local and national conditions he will be unable to deal at a moment's notice with important developments affecting the matters with which he is primarily concerned, and on which he may be asked an opinion late at night when reference to any outside authority is impossible.

On the other hand he also has his rewards. He may have occasion to write for his paper only two or three times a week, but it is quite likely that his writings may be cabled to business houses all over the world. Our own Wool correspondent, for instance, is frequently quoted in the press of the colonial wool-growing countries, not for his opinions, but as a reflection of the wool trade and thought in this country.

Well, so much for the type of journalist whom the work of a commercial correspondent demands. You will see that his qualifications are much the same as those of a City Editor, nor is there anything surprising in this. To put the right man in the right place is, of course, an essential part of the organisation of a commercial service. For the smaller posts it will be practicable, when a vacancy occurs, to call on his deputy—the man who for example used to take over from him during holidays : probably, in fact, he will come forward and ask for the vacant post. For more important, properly specialist posts, it is a matter of having the necessary contacts and knowing who might be the next best man. In the case of staff appointments it will generally be possible to fill the vacancy from the staff. But each case has to be

dealt with as it arises : obviously there can be no hard and fast rule. Specialists cannot well be treated as so many interchangeable spare parts.

That brings me to the end of the story. It covers only half the journalistic process : keeping more or less strictly within the terms of my reference, I have dealt with the collection of the raw material, but not with the editing of it. I'm afraid that the survey which I have given must appear rather scrappy : I may appear to have dealt at undue length with relatively unimportant matters, and to have treated summarily features of importance. To some extent this was inevitable. After all, the subject on which I have been trying to convey some information was the organisation of the collection of certain news—not the news itself. As to the actual menu which we give our readers—of course that is a matter of evolution. At any given moment one asks oneself—What do the readers want, can we give them anything further ? And if the answer is in the affirmative, the necessary steps are taken, and these vary with the various items of news. The result is a system which, to the uninitiated, may seem to be the reverse of systematic : but it works. Perhaps I may apply to it the words of a former Financial Secretary to the Treasury who was writing of the national financial procedure : " Intricate our system is, and must be . . . but illogical it is not."

DISCUSSION.

The Chair was taken by Mr. Guy Locock, C.M.G., Director, Federation of British Industries. The discussion was opened by Mr. E. Simons, who referred to an implication in the paper that material provided by publicity agencies was mainly worthless and consisted merely of attempts to obtain free advertisement. He mentioned examples, such as large contracts received, changes in directorate, inauguration of new manufacturing processes and products, of information of real news value which could be provided by the publicity department of a large industrial firm. Unfortunately, these news items were not always appreciated at their true value, and when a newspaper *was* enterprising enough to print such an item it often happened that the firm who had issued it was rung up by other journals, who asked why preference had been given to a rival paper. Actually they had the same news at the same time, but had not used it. He suggested that newspapers should establish closer contacts with industrial firms and the officials responsible, which would at once result in a speedy supply of first-hand news of genuine commercial value.

Professor R. S. Hutton indicated that the paper covered a rather special case of gleaning information in which the time factor was exceptionally important. He instanced a case of the Bullion Market in which it became necessary to go even farther and secure the day's price at the moment of its fixing. The service of manifold sources of such commercial information and its preparation for presentation in a newspaper was of great interest to members.

Mr. Theodore Besterman questioned whether the confidential relations between informant and journalist might not lead to abuses, such as the suppression of information useful to the private investor.

In proposing the vote of thanks, the Chairman referred to the confidence which existed between the Press and purveyors of news, and further commented on the high standard of British journalism which permitted newspapers to fulfil their proper function in the presentation of accurate facts.

Union Catalogues, National and Regional: Their Preparation and Utilisation.

By LUXMOORE NEWCOMBE.

The rapid development in union cataloguing in Great Britain is of particular interest to ASLIB, because to some extent the first great catalogue—that compiled by the London Public Libraries Union Catalogue Committee—owes its origin to a paper read by Mr. F. Seymour Smith at the Conference in 1927.* As a result of a resolution adopted in connection with Mr. Seymour Smith's paper, a Committee was set up to enquire into the possibility of compiling a union catalogue of all the Public Libraries of London. We shall consider the details of this catalogue presently. It is mentioned here only as a reminder that ASLIB has taken a prominent pioneer part in the establishment of one of the greatest library movements in recent years.

In the first part of this paper we will see something of the way in which the various union catalogues are being compiled. Later we can consider whether the expenditure of money and time on this work is worth while.

First we might consider a few general points which apply to all the catalogues. The word catalogue is not altogether a satisfactory one; "finding list" would better describe these great sources of information, their chief function being, not to give detailed bibliographical information, but to enable the staff of the National Central Library and the Regional Bureaux to find out where books are. All the union catalogues, or finding lists, contain author entries only; no attempt being made to provide anything in the nature of subject indexes. Such a task would be tremendous and to be done efficiently would necessitate access to the books themselves and not merely to catalogue entries.† The entries are for non-fiction books only, an endeavour being made in each catalogue to include an entry for each such book in the libraries covered by the catalogue. The information given in most of the catalogues is limited to such essential information as (1) the full name of the author, (2) brief title of the book, (3) number of the edition if not the first, (4) place of publication, and (5) date. Some of the catalogues also include the name of the editor or translator, if any.

The entries may be in one of three forms: (1) 5in. by 3in. cards housed in card cabinets, (2) 8in. by 4in. paper slips contained in binders, or (3) in exceptional cases printed or cyclostyled books.

The only national union catalogues on cards are the London Public Libraries Union Catalogue and the Catalogue of the Outlier Libraries

* "The reference libraries of London: Is a co-operative catalogue a practical proposition?" Report of the Fourth Conference, pp. 34–9.

† It will be understood that this paper deals only with union catalogues as a means of finding books. It is for that reason that no reference is made to the wonderful subject index on cards built up by Dr. Bradford at the Science Library. Such a subject index is quite a different thing to a union catalogue. For the same reason *A London Bibliography of the Social Sciences* and other similar books are not dealt with.

(both housed at the National Central Library), and the Welsh Regional Catalogue. The London Union Catalogue, which, as has already been pointed out, owes its origin to a large extent to ASLIB, was the first of the great union catalogues in this country. Work was begun in March, 1930, with a staff of one chief cataloguer and two assistants. Many of the thirty libraries (that is, the twenty-eight Metropolitan Borough Libraries, the Guildhall Library, and the Minet Library, which is a joint library between Lambeth and Camberwell) provided the necessary entries on 5in. by 3in. slips issued by the Catalogue Committee. Some libraries, however, were unable to spare members of the staff to do this work. In those cases a member of the catalogue staff visited the library and copied the entries from the library catalogue. In a few cases the information was obtained from printed catalogues sent to the catalogue staff for their use.

At the end of four and a half years, that is by October, 1934, the nucleus catalogue was nearing completion. Up to this date the whole of the cost had been met by a grant from the Carnegie United Kingdom Trust. The Committee were faced with the problem of the upkeep of the catalogue. This was solved, largely through the energy and perseverance of the then Honorary Secretary, Mr. Duncan Gray, who conducted the negotiations with the Metropolitan Boroughs' Standing Joint Committee, which led to the control and financial responsibility for the upkeep of the catalogue being taken over by that body in November, 1934. This event marks the first occasion on which the Metropolitan Borough Councils agreed to any form of co-operation in library matters. Under the scheme of co-operation instituted by the Metropolitan Boroughs' Standing Joint Committee all except three of the London Borough Libraries now lend books to one another through the agency of the bureau established in connection with the Union Catalogue.

A word about the cost of building up this great catalogue may be useful. The cards are thick and of the best quality. It would be a mistake to use a poor quality card when, probably, ninety per cent of the cost of any union catalogue is represented by labour and not material. 600,000 specially printed cards cost £413. As in the case of the cards, it is, in the long run, an economy to obtain the best material and workmanship for the cabinets to house the cards. The cabinets for all the cards at the National Central Library have been specially designed to give the maximum capacity on the minimum floor space. This object is achieved by making the cabinets thirteen drawers high, the bottom of the lowest drawer being 1ft. 2½in. from the floor, and the top of the highest drawer 5ft. 5in. from the floor. This makes the top drawer too high to be consulted comfortably by a person of average height. To overcome this difficulty a step runs the full length of each section of cabinets, a section being 40ft. 6in. long, containing 1,001 drawers, capable of holding 1,001,000 cards. This step, covered with linoleum, is 12in. deep and just below the bottom drawer. By standing on the step the top drawers can easily be consulted and it does not interfere with the use of the lower drawers. It must be remembered that these catalogues are for staff use only: the step method would not be recommended for public use.

FIGURE 1. A section of the card catalogue at the National Central Library

On the lower half of the cards used for the London Union Catalogue are a number of abbreviations representing the thirty co-operating libraries. The libraries possessing a copy of the book catalogued are indicated by underlining in ink the appropriate abbreviation. For instance, the card shown in Figure 2 indicates that the book is in the Chelsea, Hackney and Westminster Libraries. If at a later date a copy is added to any other library, the appropriate abbreviation is underlined. The stroke through GUIL shows that there is no longer a copy in the Guildhall Library, which once had the book.

This simple and labour-saving method of showing where books are works admirably, but it could not be adopted on a 5in. by 3in. card for more than about thirty libraries.

There are at present 1,245,000 entries in the London Union Catalogue, but this figure includes many duplicates for the same book. These will eventually be copied from the slips on to the permanent cards, the number of which is likely to be increased steadily but slowly as entries are added for new books.

Now let us see what the compilation of this catalogue on cards has cost. The following figures show the expenditure up to the time when the catalogue was practically complete and was taken over by the Metropolitan Boroughs' Standing Joint Committee.

	£ s. d.	£ s. d.
Salaries for four years and seven months		2,750 0 0
546-drawer card cabinet, each drawer holding 1,000 cards . . .	405 10 0	
600,000 5in. by 3in. cards . .	413 0 0	
1,590,000 5in. by 3in. paper slips .	98 14 0	
3,000 guide cards	43 10 0	
Sundry equipment	40 17 8	
		1,001 11 8
Postages, travelling and sundries .		124 13 8
		£3,876 5 4

Little need be said about the Union Catalogue of the Outlier Libraries, which is housed in cabinets similar to those used for the London Union Catalogue. The cards are feint-ruled, but contain no printed matter, the location of the book being shown by appropriate letters at the top right-hand corner. For instance, S.L. shows that the book is in the Science Library, S.A. in the Society of Antiquaries, and so on. In addition to entries for books in the Outlier Libraries, this catalogue also contains an entry—made by the staff of the National Central Library—for each book located by the Library for which there is not already an entry in one of the union catalogues. These entries are most useful if the same book is asked for again. The other entries in this catalogue are supplied by some of the Outlier Libraries, and consist largely of copies of accession cards. So far, the staff of the National Central Library have been able to do little to build up this catalogue, which, as a result, contains only about 160,000 entries for the six and a half million volumes in the Outlier Libraries.

We will now turn to the second form of union catalogues, that is the sheaf catalogue, consisting of entries on 8in. by 4in. paper sheets

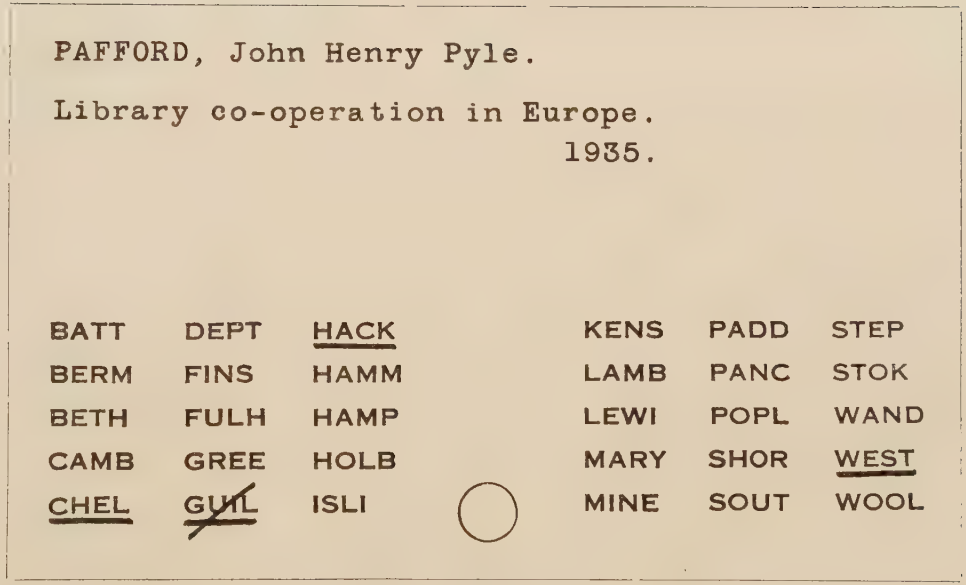
PAFFORD, John Henry Pyle.
Library co-operation in Europe.
1935.
BATT DEPT HACK KENS PADD STEP
BERM FINS HAMM LAMB PANC STOK
BETH FULH HAMP LEWI POPL WAND
CAMB GREE HOLB MARY SHOR WEST
CHEL GUIL ISLI MINE SOUT WOOL

FIGURE 2. A card in the London Public Library Union Catalogue. The card is reproduced full size, that is 5ins. by 3ins.

housed in binders. Probably the large majority of persons who have had any considerable experience in the use of catalogues, other than printed catalogues, will agree that a card catalogue is much better than a sheaf catalogue. It is easier to insert and withdraw entries, and the durability of the cards and the cabinets is altogether greater than that of paper sheets and binders. But in a great union catalogue which will, eventually, contain several million entries, the sheaf form has three important advantages.

The first of these is the cost of the material. A thoroughly good binder, bought in large quantities, can be obtained for two shillings. Each binder will contain 430 sheets. The sheets, printed as shown in Figure 3, cost about 10*s.* 6*d.* a thousand.

The second advantage is the economy of floor space occupied by the catalogue, and the third, and by far the most important, is the ease with which a number of copies of the catalogue can be obtained at a small additional expenditure of time and money. The value of this will be realised from the following outline of the way in which the Regional catalogues (with the exception of the one in Wales, which is on cards) are being compiled.

The whole of England and Wales is covered by a series of eight Regional Library Systems, each system consisting of a group of neighbouring counties. Nearly all the public libraries, including the county libraries, and many of the university and special libraries * are co-operating in their local system. At each Regional Bureau (except the Yorkshire one) a union catalogue of all the non-fiction books is being compiled. Four copies of each entry are made, one original copy and three carbons. The original copy is kept at the bureau and forms the Regional Union Catalogue. The first carbon copy, which is on a different colour sheet in each region, is sent to the National Central Library where the sheets are sorted into one alphabetical order. Already this National Union Catalogue contains nearly 600,000 entries. In a year or two the total is likely to run into two or three million. The other two carbon copies are circulated, in two groups, among the libraries in the regional area. On receipt of a batch of entries a library checks them with its own catalogue and puts a cross in the square containing the number representing the library. The sheets are then sent on to the next library in the circuit and eventually work their way back to the Regional Bureau, where the information is copied on to the bureau copy of the catalogue. Books in any library which are not already represented in the circulated sheets are entered on a smaller (5in. by 3in.) sheet, which is sent direct to the bureau. This information also is incorporated in the Bureau and the National Central Library copies.

To summarise the advantages of the sheaf form for union catalogues we find :

(a) That the material for 1,000,000 entries (sheets, binders, and cases to hold the binders) costs £807, as compared with £1,477 in the case of a card catalogue (cards, cabinets, and guides).

* The total number of co-operating libraries is now well over four hundred. The books in these libraries are available for loan to any other library through the local Regional Bureau and the National Central Library.

PAFFORD,
J.H.P.

PAFFORD, John Henry Pyle.

Library co-operation in Europe. 1935.

1	2	3	4	5	6 ✲	7	8	9	10	11	12	13	14	15	16 ✲	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40 ✲
41	42 ✲	43	44	45	46	47	48	49	50	51	52 ✲	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67 ✲	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

FIGURE 3. An entry in a Regional Union Catalogue. The libraries containing the book are indicated by a star in the appropriate numbered square. The sheet is reproduced full size, that is 8ins. by 4ins. If a library possesses a copy of an edition of the book other than the one mentioned in the entry, the date is put in the numbered square instead of a star.

(b) That 1,000,000 entries occupy a floor space of 36 square feet as compared with 101 square feet in the case of cards.

(c) That at approximately the same cost for labour four copies of the catalogue can be made, with a result that compilation is quicker and easier, and that a national as well as a regional catalogue can be compiled.

The third form of catalogue, that is printed or cyclostyled books, is the easiest to handle, occupies little space, and can be produced in as large a quantity as may be necessary ; but it is expensive if printed, represents a good deal of additional work seeing it through the press, and cannot be kept up to date.

The two greatest printed union catalogues in England are *The World List of Scientific Periodicals* and Pollard and Redgrave's *Short-Title Catalogue of English Books*. These two catalogues are so well known that they need not be described here.

The World List is soon to have a companion volume in *The Union Catalogue of the Periodical Publications in the University Libraries of the British Isles,* which is now in the press. This catalogue contains entries, with bibliographical details, for the periodicals in all the university libraries in the British Isles, with references to the libraries containing them. All non-scientific periodicals are included and all scientific periodicals which are not already in *The World List*. The latter, owing to the date limit of *The World List,* are considerable. The number of main entries in the University Catalogue is 23,115, making with about the 32,000 cross references, a total of approximately 55,000 entries.

There are several other union catalogues of early printed books, books of all dates, and periodicals, covering groups of libraries in different towns or districts, such as Oxford, Cambridge, Sheffield, and Belfast. Some of these are printed or cyclostyled, others are on cards. It would take too long to describe them in detail, but they are all serving a most useful purpose, and some of them, such as the Oxford Catalogue of early printed books, which already has over 70,000 entries, are of considerable size.

The section of the paper dealing with the preparation of union catalogues cannot be closed without a reference to the keen interest taken in this important national work by the Carnegie Trustees, without whose financial assistance and helpful advice none of the great union catalogues now making such splendid headway could have been started.

We now come to the second part of our subject—the utilisation of the national and regional union catalogues.

There are still some persons who doubt the wisdom of attempting to compile union catalogues ; but few, if any, persons doubt their value as a means of obtaining books quickly : their doubt is, rather, as to whether the money and time devoted to their compilation is justified. It must be admitted that they *are* expensive, not so much in regard to the cost of the material—cards and cabinets, or paper slips and binders—which, after all, is not a big item, but more especially on account of the salaries of the headquarters staff and—a point liable to be overlooked when calculating the cost of compilation—the value of the time of the staff of all the libraries concerned in supplying entries for their books.

Fortunately, union cataloguing in Great Britain has reached a stage

at which it is possible to give actual facts instead of having to express opinions and discuss a theory. These facts would seem to indicate that not only is the cost of compilation fully justified, but that efficient and economical co-operation is impossible without union catalogues. This opinion was held in the United States, Germany, and elsewhere many years before any attempt was made to compile a union catalogue on a large scale in this country.

It has been argued that union catalogues are not worth while because (a) the smaller libraries will not have any books which are not in the larger ones and that the larger ones will all have the same books, and (b) that as a consequence of (a) the large libraries will have to do all the lending and will receive nothing in return. Let us see how this works out in practice in the regional systems which are making full use of their union catalogues. We will deal with (a) first.

The Report of the Northern Regional Library Committee for 1935 states that *of a total of* 109,600 *entries dealt with by the union catalogue staff during the year,* 54,395 *were duplicates of entries already in the catalogue and* 55,205 *represented new entries. After five years of compilation, it is a matter of special interest that the percentage of new entries continues to be so high. The catalogue of South Shields Public Library, now in process of incorporation, is producing* 40 *per cent of new entries, even though the catalogues of such public libraries as Newcastle, Sunderland, Gateshead and Middlesbrough have already been incorporated. The catalogue of the Literary and Philosophical Society is producing* 55 *per cent new entries, while* 90 *per cent of the Durham University Routh Collection is entirely new. The percentage of new entries in the lists of additions to stock sent to the bureau varies from* 30 *per cent to* 80 *per cent according to the nature of the library.*

The editor of the Glamorgan and Monmouth section of the Welsh Union Catalogue (which includes most of the large libraries in Wales) states in his report for 1935 that *on completion of the first letter* (*A*) *an analysis of the number of copies of the same book contained in the various libraries was made, and the following table is of interest:*

Books in	1	library only	66.6 per cent
,, ,,	2	libraries only	19.7 ,,
,, ,,	3	,, ,,	7.4 ,,
,, ,,	4	,, ,,	2.8 ,,
,, ,,	5	,, ,,	1.4 ,,
,, ,,	6	,, ,,	0.9 ,,
,, ,,	7	,, ,,	0.7 ,,
,, ,,	8	,, ,,	0.2 ,,
,, ,,	9	,, ,,	0.2 ,,
,, ,,	10	libraries or more	0.1 ,,

The number of libraries covered by this table is 24, *and the number of entries analysed approximately* 4,000. *No single title is shown as being in every library, the largest number of libraries for a single title being* 17. *Cases have come to light where copies of more or less well-known books are to be found in the smaller libraries only.*

The experience of the South Eastern Regional Bureau is much the same, though perhaps even more striking as the number of libraries included in the union catalogue at the date when the following table

was compiled was fifty-one, a large proportion of which are libraries of much the same size and type. A check of the entries in the letter A produced the following table :

Books in	1	library only	40.22 per cent
,, ,,	2	libraries only	14.3 ,,
,, ,,	3	,, ,,	9.21 ,,
,, ,,	4	,, ,,	6.33 ,,
,, ,,	5	,, ,,	4.6 ,,
,, ,,	6	,, ,,	3.43 ,,
,, ,,	7	,, ,,	2.8 ,,
,, ,,	8	,, ,,	2.42 ,,
,, ,,	9	,, ,,	2.29 ,,
,, ,,	10	,, ,,	1.65 ,,
,, ,,	11–20	,, ,,	9.82 ,,
,, ,,	21–30	,, ,,	2.34 ,,
,, ,,	31–40	,, ,,	0.53 ,,
,, ,,	over 40	libraries	0.06 ,,

A third table, compiled from the London Public Libraries Union Catalogue, also shows the comparatively small percentage of duplication among a particular group of libraries. This is all the more surprising as the libraries concerned are of much the same type—though they vary in size—and cater for the public of the Metropolis. The entries checked—which represent a section of the completed catalogue for the thirty libraries—were taken from the letter A.

Books in	1	library only	50.8 per cent
,, ,,	2	libraries only	13.2 ,,
,, ,,	3	,, ,,	7.4 ,,
,, ,,	4	,, ,,	4.8 ,,
,, ,,	5	,, ,,	3.8 ,,
,, ,,	6	,, ,,	3.2 ,,
,, ,,	7	,, ,,	2.5 ,,
,, ,,	8	,, ,,	2.1 ,,
,, ,,	9	,, ,,	1.8 ,,
,, ,,	10	libraries or more	10.4 ,,

In the union catalogue of the East Midland Regional System it has been found that of the 4,000 books so far catalogued in the letter A, 2,158, or 53.95 per cent, are in one only of the 29 libraries at present included in the catalogue. 590, or 14.75 per cent, are in two libraries only. In the case of only one book is a copy found in all the 29 libraries.

Lack of duplication of stock is by no means confined to British libraries. Wherever union catalogues are compiled abroad the same result is experienced. For instance, the great Prussian Union Catalogue, which contains entries for about 2,250,000 separate works in the Prussian State Library and the ten university libraries, shows that nearly 60 per cent of the entries represent books of which only one copy is found among all the eleven libraries. By far the largest library in the group is the State Library with its 2,250,000 volumes (not separate works), and it might have been expected that few new books would be added by the other ten much smaller libraries. When, however, the State Library entries under the heading BIBLE had been circulated it was found on their return that the number of entries had

increased from 888 to 1,533. In the same way the entries under CICERO had increased from 1,150 to 2,560.

Now let us look at suggestion (b) : that the larger libraries will do all the lending and will receive nothing in return.

In the first year (1931) of the Northern System all the books obtained within the region came from 9 libraries, and only 4 of these lent more than 7 books each. 66.16 per cent (614 out of 928) came from the library of the Literary and Philosophical Society at which the bureau is situated. In the second year the number of lending libraries had increased to 15 ; in the third year to 20 ; in the fourth year to 24 ; and in the fifth (1935) to 32, of which 8 lent over 100 books each. Although in the fifth year the number of books lent had increased to 2,362 (two and a half times as many as in the first year) the Literary and Philosophical Society's contribution had dropped to 375 (15.87 per cent). All the borrowing libraries, except two very small ones in towns with a population of 3,239 and 6.581 respectively, had lent books. This marked and steady increase coincides with the growth of the union catalogue, and, of course, the proper use being made of the catalogue by the bureau staff. It is particularly interesting to note that the libraries which have not lent are those whose books are not yet included in the union catalogue.

In 1935 21 of the 32 borrowing libraries in the Glamorgan and Monmouthshire section of the Welsh Regional System also lent books. In the first year (1932)—when the union catalogue was in its infancy—the Cardiff Public Library, at which the bureau is housed, lent no less than 89.4 per cent of the books. By 1935 the Cardiff percentage had dropped to 63.6, and with the growth of the union catalogue it is likely that this percentage will continue to drop.

The South Eastern figures for 1935 show that every one of the 64 co-operating libraries has lent books. As the union catalogue grows the number of books obtained from the smaller libraries increases. It is noteworthy also that the percentage of books supplied from within the region increases as the catalogue grows. In the first quarter (April to June, 1934) the libraries in the system lent only 36.3 per cent of the books asked for, but, solely as a result of the growth of the union catalogue, this percentage had increased to 75 during the quarter January to March, 1936. During this period the number of entries in the union catalogue had grown from 43,000 to 110,000.

At a time when the Union Catalogue of the Outlier Libraries of the National Central Library contained only 65,000 entries for 5,115,000 books, a test was carried out over a period of fifty days, during which it was found that of 3,635 books for which search was made in the catalogue, 733, or 20.16 per cent, were successfully traced, an average of 14 books found each day. If such a proportionately small catalogue could locate one book in every five times it is consulted its value is already established and a clear indication of the utility of a complete catalogue is given.

The number of entries in the various union catalogues at the National Central Library is now 2,090,000, and in Wales there is another 538,000, making a total of 2,628,000 entries in the two national centres.

Union catalogues are well worth the expense in material and labour involved in their compilation and are essential if inter-library lending

is to be developed on sound lines with every library taking its share in lending as well as borrowing, and with the possibility of books being traced quickly and economically. None of the alternatives provides a satisfactory substitute. These alternatives are :

(a) The circulation at regular intervals of lists of books wanted. Lists are already in use by the National Central Library and some of the Regional Systems, but only as a temporary measure pending the completion of the union catalogue. Such lists are, however, far from satisfactory, first because they are a slow method of obtaining the required information, and, secondly, because they waste the time of librarians all over the country who have to check the same lists to see whether they have any of the books. The aggregate time spent in checking a single list of, say, fifty entries in one-hundred different libraries, allowing half a minute (probably too short a time) for each title would be 41 hours and 40 minutes.

(b) Postcards, either one to each library or one to circulate. The latter is a very slow method and the former is expensive.

(c) The telephone. On the ground of expense this is out of the question for other than local calls, and even for local calls the number of libraries to which enquiries could be made would be few. Imagine the time spent by an assistant at the National Central Library or a Regional Bureau and an assistant at a library trying to check on the telephone a list of, say, twenty, thirty, or perhaps more books, some in foreign languages. Imagine also the confusion and mistakes that would arise from one end of the list to the other !

(d) Leaving the librarian of the borrowing library to find out for himself where the books are.

(e) Depending upon one large library (as in the case of the West Midland Regional System) or a small group of large libraries (as in the case of the Yorkshire Regional System) for all, or nearly all, the books.

Union catalogues may be expensive to compile—but not excessively so—but most of the alternatives are also expensive and none of them is satisfactory. Moreover, union catalogues can often be made use of for purposes other than that of tracing books, such as the avoidance of unnecessary duplication of expensive books. An illustration of this is provided by the use made of the Union Catalogue of the Periodicals in the University Libraries. A sub-committee appointed by the Conference of Teachers of German in the Universities worked through the entries before they went to the printer and copied on cards all entries that seemed appropriate. Lists were then prepared and sent to the German Department of every university, where they were checked. When all the lists have been returned a new list will be compiled, embodying all the corrections. This list will be kept up to date by information received from the university librarians. Apart from the obvious general usefulness of such a list, it is hoped to tackle other problems as a result of the information obtained, such as : (1) Which of the periodicals found nowhere in England should be bought, and who should buy it ? (2) Of which periodicals are there more copies than is necessary in England, and who should cease to take them ? In this way it is hoped that in time every periodical important for the study of German will be available somewhere in the British Isles without overstraining the resources of individual libraries.

DISCUSSION

Owing to illness, Colonel Newcombe was unable to present his paper in person, but he was represented by Mr. J. H. Pafford. In the unavoidable absence of Colonel Mitchell, the Chair was taken by Professor R. S. Hutton.

The discussion was opened by Mr. Theodore Besterman, who, after expressing his warm appreciation of Colonel Newcombe's paper and of Mr. Pafford's supplementary presentation of it, drew special attention to the position of the catalogue of outlier libraries. The chief outlier libraries, such as those of the London learned societies, would never form part of a regional scheme, yet there could be no doubt that the resources of these libraries were unrivalled. Indeed, the figures given by Colonel Newcombe suggested benefits which could hardly be exaggerated from a completed union catalogue of outlier libraries. He thought it well within the bounds of possibility that such a catalogue would yield a large proportion of the intrinsically valuable books in the British Museum and perhaps a million not to be found there. It thus seemed worth while to make a very special effort to obtain the necessary funds for the completion of the catalogue, for the lack of funds was probably the only serious difficulty in the way. The sum required would be by no means excessive.

In reply, Mr. Pafford stated that the Outlier Union Catalogue included periodicals as well as books. The catalogue remained small compared with the Regional Union Catalogues, because while those had support from all the libraries in their various areas as well as grants from the Carnegie United Kingdom Trustees, practically the whole of the work for the Outlier Union Catalogue had to be done in spare moments by one member of the staff at the National Central Library, and there were no special funds for it. With regard to the future, many outlier libraries were in Regional Bureaux and their catalogues would be incorporated in the Regional Catalogues, but many special libraries, particularly in London, would not be in Regional Schemes, and it was of the greatest importance that the union catalogue of these special outliers should be developed.

Professor R. S. Hutton also referred to the Union Catalogue of Outlier Libraries and urged the importance to the outlier libraries themselves of fostering the acceleration of the cataloguing. He also mentioned that at the University of Cambridge in the main library and in some forty departmental libraries large additional collections of periodicals did not appear to be noted by the editors of the forthcoming Union Catalogue, and he hoped that steps would be taken to record these before publication, partly in the printed edition and still more in the permanent slip entries at the National Central Library.

Replying to Professor Hutton, Mr. Pafford said there would certainly be some omissions from the Union Catalogue of periodicals in the Universities as there are from all catalogues and other bibliographies, but it would contain the chief contents of 100 libraries and would be a most valuable tool. Furthermore, a MS. catalogue of other periodicals in the Universities would be kept, and would be kept up to date, if possible.

Mr. Besterman put forward the following resolution : "This Annual Conference of ASLIB notes with satisfaction the progress of the several union catalogues and urges that every effort should be made by the National Central Library to promote the active compilation and early completion of the Union Catalogue of Outlier Libraries." The resolution was seconded by Mr. Arthur F. Ridley and was carried unanimously.

Professor R. S. Hutton then moved a vote of thanks, seconded by Dr. E. E. Lowe, who said that he was very glad to be asked to second the vote of thanks to Colonel Newcombe and to Mr. Pafford, because it afforded him the opportunity of adding his testimony to that given in the paper as to the usefulness of Union Catalogues. The East Midland Regional Library System had its headquarters at the Leicester City Library, and he was privileged to keep an eye on its organisation and development. At the beginning, in January 1935, in the absence of even the rudiments of a Union Catalogue, only six libraries out of the forty participating in the scheme lent books, but with the growth of the catalogue it had become possible to trace books in other libraries and in the last quarter thirty had lent books. Duplication of works was found to be slight also, as far as it had been tested, approximately fifty-three per cent. occurring in one library only. He hoped that the catalogue would prove to have other uses and values than that of a mere finding-list—that it would help for instance in the correlative, co-ordinated development of the libraries within the Region, which he felt personally should be one of the objects of the scheme.

The Need for the Centralisation of Information on Economic and Social Surveys.

By A. M. CARR SAUNDERS.

Though the term social survey is in common use it is of recent origin. This is not because surveys are of recent invention but because in recent decades a particular kind of survey has come into prominence for which a new descriptive term has been found. The distinctive feature of the new type of survey is measurement; this type of survey is the result of applying scientific methods to social phenomena. It is not that the new has ousted the old; it is merely that the new method has added another weapon by the use of which we can hope to broaden our understanding of social conditions. Those pictures of social conditions, which rely upon personal observation and literary skill, retain their value. No one would say that the pictures, recently drawn of England by Mr. Priestley and of Scotland by Mr. Muir, are superfluous because of the rise of the new mechanism. The two methods are complementary. The main difference between them is that the social survey can be organised, since it implies merely the application of known scientific methods, whereas the pictorial survey, if that term is legitimate, requires a certain trained receptivity and literary skill which cannot be put into operation in the same way as a scientific mechanism.

Before discussing the organisation of social surveys something more must be said about the meaning of the term; for though the term is often confined to mean what I am going to call the local social survey, it is also used, and quite properly used, to mean surveys which have no local reference. Thus the object of a social survey may be to enquire into the causes of juvenile crime or into the special difficulties which confront large families. In such cases as these the data may be gathered in one locality; but the object is not primarily to illuminate conditions in that locality, but to throw light upon a particular problem of general importance. I do not propose to say anything more about surveys of this kind, not because they are unimportant, which is far from being the case, but because their organisation does not raise the difficulties which confront those who plan a local social survey.

From now onwards I propose to deal with the local social survey though, since the term is cumbrous, I shall refer to it shortly as the social survey. We may, I think, roughly distinguish three kinds of social survey as practised in this country to-day. First there is the type which has been brought into being by the town and country planning movement, and of which the work of Professor Patrick Abercrombie is the most notable example. The object here is to examine the geographical features of a locality and the present utilisation of the space, and then to suggest on what lines further development and redevelopment should proceed. Secondly, there is the economic or industrial survey such as was initiated a few years ago by the Government in special areas. Here the object is to ascertain on the one hand

the actual and prospective opportunities for employment, and on the other hand the number, age, sex, and industrial training of the actual and prospective seekers for employment. These two types of survey have limited, clearly defined and practical objects. No great difficulties in planning or execution arise. I pass on to consider the third type.

Here we come to the heart of the matter, for the third type is the social survey in the most usual meaning of the term. Under this head, for instance, are classed the famous survey by Booth in his *Life and Labour of the People of London,* which has recently been repeated, the work of Rowntree and Bowley, and the surveys on the Tyneside, the Merseyside, in Southampton, and other places. But how are we to define this type? The aims are not narrowly limited; there is no immediate practical object. Perhaps if we ask why they were first set on foot, why they have been continued, and what results they have achieved, the answers may guide us to some definition.

The date of Booth's survey is significant. It was set on foot in the 'eighties and was one of a chain of events—the founding of the Charity Organisation Society in 1869, the opening of the first Barnardo home in 1870, the founding of the Salvation Army in 1878, and of Toynbee Hall in 1884—which are evidence of a consciousness of social evils. There is no doubt that the motive which led to surveys of this kind was the desire to be better informed about social conditions, accompanied by the hope that upon the knowledge so gained, practical proposals would result. In comparison with other types of survey the vagueness of the object is striking, and I shall refer to this again. But owing to the genius of those who were in charge of the earlier surveys—Booth, Rowntree, and Bowley—point was given to the investigations. The measurement of the amount of poverty and of the conditions (old age, widowhood, low wages, and casual labour) associated with poverty became and remained the chief object. But it is not the case that social surveys of this kind are necessarily directed to poverty. In the United States, the only other country where social surveys have been made on a large scale, they have been mainly directed to problems of social maladjustment; the reason is obvious, namely, that in a country of immigration the problems created by the presence of aliens are uppermost.

When we turn to the results that have been achieved, there is no doubt that the statistical demonstration of the existence of a large amount of gross poverty has made a dent upon the public consciousness during the last forty years. It is impossible for anyone to doubt the facts and hardly possible to forget their existence. It is less easy to say what other results have followed; but it is probably true to say that the building up of the social services since 1900 would not have taken place, or would have taken place far more slowly, if the public conscience had not been made sensitive to the existence of poverty.

After this excursion into the history of the general social survey let us consider the question of the conditions under which further surveys may be of value to-day. The first matter which deserves notice is that the very success of former surveys is a snare, while the vagueness of the object is a danger. Public spirited people with a social conscience may get together and decide that something ought to be done for some locality; aware that surveys have been productive, but with no clear views why they have been so, they say—let us set going a social

survey. The main point that I want to make to-night is that, unless certain conditions are fulfilled, energy, time, and money may be wasted for the following reasons.

It is not true that surveys would be equally repaying in every part of the country. There is perhaps a case for saying that it would be worth while to make for every area in the country a picture of the conditions by bringing together the most important published data out of the census, the medical officer of health's report, the Ministry of Labour's employment figures, and so on. Such pictures would be informative and might do something to arouse and direct local energy. But since the making of such pictures involves no first-hand gathering of material and no attempt to find unknown associations between local phenomena, it does not rise to the dignity of a survey. For a survey implies research. The fact is that research is not everywhere equally worth while. The areas where surveys are wanted are those with very definite special problems and those which, having no very special problems of their own are, nevertheless, typical of a certain kind of area, provided, of course, that this type of area has not been already surveyed. There is no guarantee whatever, in the absence of central guidance, that surveys will be initiated where they are wanted. The probability is rather that persons with time, energy and money will be found where social problems are least pressing and surveys least necessary.

Before coming to the question of central guidance, there is something more to say about the choice of a locality to survey, especially if the main object of a survey is to be the investigation of poverty. There are certain types of area which have never been thoroughly examined, especially in rural districts, and it is very desirable that one of two rural surveys should be set on foot. Again, a very repaying thing is to re-survey after an interval a locality that has been examined. For proof of this we may point to the *New Survey of London*, which has enabled a fascinating contrast to be drawn between present-day London and London of the 'eighties, and to Professor Bowley's examination of his five typical towns both before and after the War. Indeed, when poverty is in view, what is wanted now, in addition to getting some measurement of areas of a kind about which we know nothing, is rather a re-survey of places already examined than opening up new areas. If this re-surveying could be arranged, we should have an adequate measure of changes in poverty without any further extension of surveys to new areas.

While poverty has been the main interest of most previous work, it has not been the only interest. It has, perhaps, absorbed relatively too much attention. In any case, we are on the way to obtaining the information that we want, and new surveys might well have some other chief objective. But it requires careful consideration to select the objective and much thought to find the best area for the purpose. It would take too long to discuss the various possible objectives. I will mention one only. The building up of the social services has been the main constructive effort of the past generation. We know, however, very little about the manner in which they function. It would be of great use to investigate their administration and the results upon the beneficiaries. But, in order profitably to examine their administration, careful choice of an area from the point of view of

local government is necessary. Here, then, namely in the choice of new objectives, is there again need for central guidance.

Suppose that a satisfactory objective has been chosen and an appropriate area found, then comes the question of method. During the last forty years a large amount of experience has been accumulated which bears upon the way of running a survey. It would be as unwise to disregard this experience as it would be to set up a child guidance clinic or any other social mechanism without availing oneself of the experience which has been gained in other places. Two main lessons have been learnt. In the first place there must be a director of the survey. He may be aided, but should not be commanded, by a committee. If a survey is to be more than a haphazard collection of miscellaneous facts, much time must be spent before field work begins. It must be decided what problems are to be investigated and what data are relevant to these problems. The decision in these matters must be that of one person though he may get valuable suggestions from a committee. A committee cannot conduct research, carry out an expedition, or paint a picture ; nor is a research worker, a leader or an artist likely to make much of his job if he is under the orders of a committee.

Having planned the research, the director must next get the field work done, and the second chief lesson is that voluntary workers are of little use for this purpose. The reason is that those who collect the information must be under the orders of the director, whereas, where voluntary workers are employed, he is under an obligation to them. It has been found that the best procedure is to employ one or two full-time assistants and otherwise to pay by the piece. Of course, the objection will be raised that this is too costly. But the fact is that social research is as costly as research in the natural sciences. If we are not willing to find the money for the former, it had better be left undone ; social research, which does not reach proper standards, had better be left alone since it will merely discredit social science. Lastly, it is the task of the director to analyse and relate the material.

Many other lessons have been learnt relating to sampling, carding, and so on ; but they are too technical for mention here. I must now pass on to the question of co-ordination. The need for some central authority to guide and co-ordinate local social surveys of the general type has become apparent for three reasons. First, guidance is required as to the areas which it is most worth while to survey ; secondly, guidance is wanted to indicate the main objectives which it is now worth while to pursue ; thirdly, some central body is needed which can accumulate and dispense information about the best methods to follow. Such a body would best be composed of those who had had experience in the conduct of surveys. If it came into existence it would be available to give advice to those who asked for it regarding objects and methods. It could, of course, also give advice about areas ; but the trouble here is that those likely to ask for advice would, in most cases, already have chosen their area. If, however, some one or some charitable trust interested in surveys would place at the disposal of such a body a sum of money to be spent on such surveys as were approved by it, it would then be in a position to initiate surveys in those places where they are needed and where local effort had not brought them into being, as well as to aid surveys locally initiated in suitable areas.

DISCUSSION.

The Chair was taken on this occasion by Mr. Thomas Adams, F.R.I.B.A., F.S.I., Vice-President of the Institute of Landscape Architects, who, in his introductory remarks, expressed his warm appreciation of the speaker. He asked for an amplification of the paper and for guidance as to how intelligent centralisation was to be achieved. The problem of the why and wherefore of social development required, he considered, great attention. His own experience of investigation disappointed him, because of the failure to proceed from the finding of facts to their analysis for purposes of discovering the relation of facts and the use to be made of the knowledge gained.

The discussion was opened by Mr. R. F. Bretherton, who was of the opinion that the influence of Booth, though great, was delayed. It was important that surveys should reach a wide public at an early point. The actual bulk of most surveys was large and repellent. He suggested the publication of pamphlets during the progress of the work.

Miss E. M. Forcey suggested the use of census machinery for surveys, augmented by the more intelligent staff of the municipalities. She regarded surveys as a Government job.

Mr. H. H. Johnson pointed out that the reference made by Professor Carr Saunders to the relative amounts of money spent on scientific and social research was reinforced by the figures given by Sir Josiah Stamp in his presidential address to the British Association at Blackpool. Authoritative pronouncements of this kind would help towards the formation of a public opinion favourable to social survey and research. The creation of a public body, with adequate funds to direct and foster such research, depended on the formation of a favourable public opinion.

Much social research, Mr. Johnson continued, was now being undertaken, the present survey of the traffic problems of Greater London, on which Sir Charles Brassey was engaged, being a case in point. A great deal of social survey was also carried out by commercial companies, and any central body of an authoritative type might work in conjunction with such organisations.

Councillor Mary Kingsmill Jones suggested the investigation of social conditions in areas where women were at work and the men were unemployed, instancing a case of the electrification of some factories where the work could be done by women as easily as by men.

Councillor R. Simpkins expressed a doubt as to whether, outside local government staffs, there was a sufficient number of people on which to draw for survey work. There was a need for more trained personnel.

Mr. H. J. Jones drew attention to the title of the lecture, and said that it was almost inevitable that discussion should extend to both the scopes and the methods of surveys. Our jobs were essentially the provision of bibliographical tools, though some of us, as specialists, might also have to classify and abstract results. In the former connection he suggested that local government records might be more used and drew attention to the S.L.A. publication, the *Basic List of Current Municipal Documents*. Concerning method, he criticised the tendency to imagine or guess at a problem rather than to investigate its extent; he also questioned whether our present knowledge of conditions was not sufficient for the tackling and possible solving of major social problems. He opined that a one-in-thirty sample for local social surveys was insufficient. Concerning voluntary workers, he queried the objection raised (of obligation) in indicating that the director is obliged to *all persons interviewed;* he denied that, especially with many years' experience, they were so biased and self-pressing as others had urged—they often had to be "discovered" —they often knew more about more people than the survey demanded to know and had experimented in the solutions of some of their problems. He suggested that a survey of voluntary social workers (and "reformers") would show important and interesting results such as would make it admirable as an *initial* social survey.

Miss L. M. Taylor said that she would be interested to know if any survey had been made, on a really large scale, of the breakdown of family expenditure on different items of living expenses, such as rent, food, clothing, etc., to show in what proportion the incomes of various classes of society are allocated.

Mr. F. A. Hoare referred to the divorce between the academic and the business points of view. He thought that more interchange of opinion was necessary between business men and academicians. If social surveys were to help to bridge the gulf separating pure research from industry, the business men would be very glad. He advocated the avoidance of surveys which did not add to the store of human knowledge. A great deal of work went on in commercial enterprises, e.g. the

London Press Exchange. Thorough planning in advance was necessary, and the objective must be worth while.

Dr. Sandison said that the advertising experts necessarily depended on research work already done by pure academic workers.

Other contributors to the discussion were Mr. B. M. Headicar and Dr. G. Pratt Insh.

After proposing the vote of thanks to the speaker, the Chairman referred to his own personal experience of a social survey made in Canada; though financed by the Government it had no political bias. He also referred to another survey made in New York, financed by industrialists. He did not consider it necessary for everyone to read the whole report so long as the public was made aware of its existence. He thought that the diagnosis of problems should be made in the form of a preliminary survey before a complete survey was attempted.

The vote of thanks was seconded by Mr. C. S. Orwin.

Government Publications.

By B. M. HEADICAR, F.L.A.

Those of us who regularly use parliamentary and Government publications have long ago realised that they are the foundations of all the literature relating to industry, politics and commerce of the various countries of the world, but there is a vast majority of our population who have never used, and probably never seen, a "blue-book" or its prototype. Comparatively few people know that subjects as far apart as "Basket-making in Japan" and "Nelson's tactics at Trafalgar" have been treated in parliamentary papers. Speaking generally, they are fundamental to every student of a country and its affairs, because the information they contain is not only unobtainable elsewhere, but because, being "official," its accuracy and value must necessarily be assumed. These publications are sometimes valuable for what they do not contain—that is to say, valuable to producers. It is unfortunate that one is obliged to suspect at times that all has not been told that might have been. Perhaps the most glaring case of what might be called "official" deception is connected with the Great War. At its outbreak a volume of about 300 pages was issued at the extraordinarily low price of one penny, which purported to give the correspondence between various European Governments leading up to the War. There was nothing to indicate that the telegrams and letters contained in the volume were not complete and accurate, and it was not until three or four years had elapsed that one had any misgivings in the matter. When M. Siebert, who was attached to the Russian Embassy in France, lost his office after the revolution of 1917 in Russia, he published two volumes containing the full text of these telegrams and documents, and not until then was there any general knowledge that every important paragraph favourable to our late enemies had been deliberately left out of the English version. So perturbed were the authorities that every possible effort was made to prevent Siebert's book being noticed in the Press. In fact, I believe I am correct in saying that only the *Manchester Guardian* and the *New Statesman* reviewed the work, which was first published in America owing to the difficulties raised here. The reason behind the official attitude in this matter was to this effect —that it was absolutely essential to have the nation unanimously backing up the War, therefore nothing which favoured the other side must be made public. This case is always in my mind when reading reports to-day on controversial matters, and many instances of the probable suppression of vital facts suggest themselves.

However, so far as commercial and industrial, trade and shipping statistics are concerned, there is a generally admirable collection available and the problem with which I have to concern myself this morning is the acquisition and arrangement of publications emanating from official departments of all countries. So far as the United Kingdom is concerned, it is the only country, except the United States, which issues regularly complete and detailed lists of its publications.

There are monthly, half-yearly, and annual lists which cover everything issued by H.M.S.O. The *Consolidated List of Government Publications* includes all publications of the year, adequately indexed. The *Numerical List and Index to the Sessional Printed Papers* is confined to the Parliamentary Publications of the House of Commons. It contains a list of Bills, reports, and papers arranged in order of the official numbering, and an alphabetical index showing the number of each paper and the particular bound volume in which it has been placed. The sessional Papers begin a new numbering each session, but the Command Papers (that is the group of papers presented to both Houses by command of the Sovereign) have consecutive numbers through a series of years. For instance, [C] represents papers published between 1870 and 1899; [CD] papers published from 1900 to 1918; and [CMD] the current series from 1919 onwards.

The House of Lords papers are also issued in sessional form, with a numerical and alphabetical index. Most of these papers, however, also appear as House of Commons papers. There are in existence also cumulative volumes of these indexes covering a long series of years, from 1801 (when parliamentary papers in their present form were first issued) arranged in one alphabet, and giving the official number and volume of each paper. One volume, 1852-99, appears to have a history. It was never easily obtainable, and rumour says that the papers for this period were indexed by a contracting firm from the bound volumes. Either from lack of instructions or their own forgetfulness, the contractors failed to give the official numbers of the separate papers but only the volume numbers, so it was of little value to anyone not possessing the whole set bound in its official order. When the whole edition of this index had been printed off at the cost of some hundreds of pounds, the error was noticed and most of the stock was destroyed by official instructions.

Many reports issued before 1801 are only to be found in the journals of the House of Commons, to which full indexes from 1547-1820 have been published. A very useful index to reports of Commissions and Committees is P. S. King's *Catalogue of Parliamentary Papers*. The first volume covered the years 1801-1900, and two supplementary ten-year volumes have been issued since. It is a well-arranged list under the various subjects with many cross-references, but the official numbers of the papers are nowhere given, so it must be used in conjunction with the official indexes if exact identification is required. Acts of Parliament are issued individually in the first instance and afterwards in volume form for each session. There is a cumulative index to these, published annually. It is in two volumes, entitled *Chronological Table and Index to the Statutes*. This index is most valuable because it not only refers to the specific Acts covering a topic but also gives references to the sections of other Acts affecting the matter in question. For instance, under " Public Libraries " will be found the references to Acts in force and also references to any other legislation bearing on public libraries. The index is rather expensive, costing, I think, three to four guineas each issue.

In regard to non-parliamentary publications, certainly not less important to the commercial and scientific community than the parliamentary, they are indexed up to 1920 in a separate *Catalogue of Works (other than Parliamentary Papers and Acts of Parliament)* published by

H.M.S.O., and since 1920, in the monthly and consolidated lists. I must not forget to mention the periodical publications of the Government, such as the *Ministry of Labour Gazette* (monthly), the *Board of Trade Journal* (weekly), and the *Journal of the Ministry of Agriculture and Fisheries* (monthly), all of the greatest importance in their particular spheres.

All statistical matters appearing in official publications is indexed in the *Guide to Official Statistics,* published annually. Entries are first given under subjects with a reference number in each case. This number refers to the last part of the index in which the particular publications quoted from are arranged in numerical order. This index is not only the cheapest shilling's worth issued from H.M.S.O., but it is a great time-saver to those in search of figures. My one criticism, which I have frequently employed in reviewing, is that it may mislead the enquirers sometimes. For instance, under subjects you may look up France, Germany, etc., and find no entry or reference. An exhaustive search will find papers on these countries under the heading "Publications of the Department of Overseas Trade." I would again ask our Chairman if it is not possible to give at least a reference under the country in such cases.

In regard to the official publications of other parts of the Empire, it may be said that such lists of them as do exist are for the most part inadequate. It is not possible to keep trace of new publications without long research among papers and reviews, and the representatives of overseas dominions in this country are not well served in this matter. To my own knowledge they frequently are unaware of official documents issued by their own Governments. The Crown Agents for the Colonies issue lists of the publications of Crown Colonies, but these are not always complete and reference to the official gazettes of the Colonies concerned is not always an easy matter.

The Library of the Royal Empire Society has a splendid collection of Empire official documents, and its journal is a good help to those in search of these, but it ought to be possible, surely, for some method to be devised by the Government departments concerned to ensure the regular publication of lists of all Empire reports and papers available for purchase. The feeling is always present in my mind that those responsible are not too anxious for publicity to be given to many of these papers. India is rather better served in regard to lists. The India Office publishes a monthly list of publications issued by the Central Government and the Provincial Governments in India, but these do not apparently include everything. I would refer those present to the valuable paper by Mr. Kalyanaraman, printed as part of the Proceedings of this Conference, for a full account of the publications of the Indian Governments, especially concerned with commerce, industry, and labour, and, in particular, draw attention to No. 1 of the *Indian Industrial Research Bulletin,* which contains a very full bibliography of industrial publications issued in India from 1921. The material in this number is classified on the Universal Decimal system, and it is hoped an annual supplement will be issued from 1936. The India House Library Catalogue, 1933, will be found of the greatest use.

The official publications of the United States are much more numerous than those of any other and, generally speaking, are of a more practical character than our own. They make a greater use

of experts in their compilation than we do here and, printed as well as published by the Government Printing Office, are much less costly than most official publications of the United Kingdom. In fact, it is astonishing how much official literature of the United States one may get for the modest 5 cents. Incidentally, too, free distribution to libraries and other institutions is not grudgingly made or non-existent, almost, as here. This matter of price and distribution is an extremely important one. The prices of our parliamentary and official publications to-day are enormously in excess of what they were 20 years ago, and one has only to compare the cost of the *Annual Statement of Trade and Navigation* to-day with that of, say, 1919 to realise how great must be the handicap to the spreading of essential facts when what cost 6*s*. or so before the War now costs about ten times as much. The question of profit and loss is, in my own mind, not the most important one. It must be remembered that the printing and distribution of Government publications are a charge to the country as a whole; that is to say, you and I have to pay for them. Their functions are, surely, to make known as widely as possible essential facts and problems affecting the community—national and international—and they should be issued at such prices as would enable all libraries and most individuals to procure those of direct importance to them. This practice would only be carrying out the recommendations of most Commissions and Committees which have considered the problem since 1836. When it is a matter of getting support for a war or education in frightening people, substantial volumes are issued at a penny each, or sent by post to every household. If expense is no deterrent in the production and distribution of such literature, it should not be held out as a reason for the high pricing of documents of a less warlike, but infinitely more valuable, character.

The indexes of the United States publications are quite numerous, but there is time only to suggest one or two. The *Monthly Catalogue of Public Documents* is an annotated list, giving the classification number of each paper, according to the scheme of the Government Printing Office. There are also lists regularly issued by the chief departments of the Government, while a series of subject lists called *Price Lists* is regularly revised and distributed free of charge to any enquirer. The *Farmers' Bulletins* and the various trade reports of the Department of Commerce are probably known and used the world over.

In so far as other countries are concerned, we have to depend largely on unofficial bibliographies for a knowledge of what is available. For France, those who do not take the *Journal des Débats* must depend on periodicals and such works as *Biblio,* while Italy is catered for fairly fully by *La schema cumulativa Italiana,* but both of these publications are issued once a quarter only, and therefore one cannot be as much up to date as is desirable.

Perhaps I should have included Germany in my opening remarks on indexes, for since 1928 there has been published the *Monatliches Verzeichnis der reichsdeutschen amtlichen Druckschriften,* a pretty full guide to the public documents available.

Reference should also be made to such works as Gregory's *List of Serial Publications of Foreign Governments,* 1815-1931 (excludes U.S., of course) and Child's *Account of Government Document Bibliography,* 1927. The latter gives useful information about Government publica-

tions of all countries and their indexes and catalogues. For a general description of the various categories of Government publications of the United Kingdom reference should be made to Mr. Lees-Smith's *Guide to Parliamentary and Official Papers,* published in 1924 and now, unfortunately, out of print. Speaking from memory, I think it was first published in the *Library Association Record* for 1924.

I must not omit to mention the Parliamentary Debates of the various countries, particularly our *Hansard,* which, as Cobbett's *Parliamentary History,* begins at 1066. Many people studying events and ideas of the past forget that, so far as any legislation on them is concerned, there is no better guide to the opinions of all sections than the speeches made in the debates of our Houses of Parliament. Read the debates on the Children in Factories Bills of the 1830's if you want to know to the full the evils which it was proposed to remedy. There is another matter to which I would like to draw the attention of our Chairman this morning. References are frequently found to the " May " report, the " Colwyn " report, the " Macmillan " report, etc. Since 1875 nearly 200 Government reports have had unofficial names given to them and frequently no mention is made of the real name. People look in the official indexes under May, Macmillan, etc., and find nothing. Could not H.M.S.O. arrange that, when any such unofficial name becomes attached to a report, a reference should be given? It is not a big thing to ask, but I know it would save an immense amount of searching.

The arrangement of Government publications is largely a matter of quantity and convenience. Libraries taking all will probably depend on the official arrangement or classification, using the official indexes, and doing away with individual cataloguing in the library. Most libraries will probably find it best to treat this class of work in the same way as an ordinary book or pamphlet, marking the official lists with the location of the particular works in the library. Certain special classes of library (geographical, historical, etc.) will probably find the most convenient arrangement for their readers is to place all Government publications by country and subdivide by topic. It may even happen that an institution dealing with commodities mainly (metals, foodstuffs, textiles, etc.) finds it better to arrange material in accordance with its relevance to the commodity concerned. Whichever plan is most likely to meet the needs of a library's clients should be the one agreed upon, even if it be the Decimal Classification. With reference to binding, it is well known to all of you that many Government publications are too weak in the knees to stand upright on the shelves unaided, as well as being too ephemeral to justify the expenditure of a large sum on the binding of them. A simple method of meeting the difficulty is to procure two pieces of millboard the exact size of the volume, take off the front cover, pierce three holes right through the work, say half an inch from the spine, one in the centre, and one at each end, two inches or less from top and bottom. Then thread a piece of narrow tape through the holes made and fasten at the back. Paste the cover leaf, previously removed, on to the front millboard. In this way you have a rough-and-ready binding good enough for your purpose. And, by the way, if a volume is discarded, don't forget to remove the ready-made binding and use it for another volume, pasting the new title cover over the old one. Such reports as those

issued by the Department of Overseas Trade are most economically bound in series of, say, five years in one volume, and, if protected temporarily in the way I have described, the binding bill will be much reduced.

Some libraries and departments have made a point of binding into volumes such things as the *Farmers' Bulletins* of the U.S. and similar documents of the Department of Commerce. This is not recommended, because each item usually deals with a specific topic and revised editions are frequently issued, having the same progressive numbers as the old edition. There is another objection also to the binding of such things, several in a volume. Usually the person who wants one bulletin is not interested in the others in the volume and, in a library where these are largely used, two or more people might conceivably want the volume at the same time. The best method of filing these (unless classified individually) is to keep them in pamphlet boxes (steel, for preference), or in a self-binder which allows for easy substitution of a new edition. The amount of cataloguing done will depend mainly on the needs of the department, but by using official indexes as much as possible the clerical work can be materially reduced. Many places will find it essential to have the fullest cataloguing under subjects, with cross-references of all kinds from country to subject, subject to subject, etc., while others may require to undertake analytical cataloguing of the more detailed kind. My point is that both the classification and cataloguing methods should be determined from the point of view of the user and not decided upon because they are used somewhere else.

Miss Cleeve has been good enough to send me the following notes on the selection and arrangement of Government publications in the Library of the Royal Institute of International Affairs, and I am most grateful to her for kindly allowing me to make use of them.

1. Selection.

(i) *British Official Publications.* We have standing orders for certain classes of British Official Publications, i.e. all Cmd. Papers issued by the Foreign Office which we obtain regularly on account from the Stationery Office, and Colonial Office papers.

Other British Official Publications or publications of Colonial Governments are selected from trade catalogues, newspaper reviews, as well as recommendations from research workers at Chatham House.

(ii) *Foreign Official Publications.* We have standing orders for certain classes of foreign official publications also, which we obtain regularly (a) on account, (b) by subscription, (c) by exchange with the Government or department concerned. Single publications which do not come into any of these categories are selected from official catalogues, press announcements, and reviews.

2. Recording.

All Government publications are entered in the Author Catalogue and Subject Index, though for most serial publications only a single " in progress " entry is made. The separate issues

are then recorded on a squared card in a separate card index, similar to that used for periodicals.

3. Arrangement.

Chatham House Library is so arranged that as far as possible all books and pamphlets dealing with a particular country are kept together. The Government publications, however, increased so rapidly from year to year that it was found necessary to keep them in a separate part of the Library. The classification scheme is the same as in the Main Library, except that the classification mark is prefixed by the letter D (i.e. K3 = Germany, DK3 = German Government documents).

There is one category of Government publications which we have so far kept in the Main Library, namely, those dealing with other countries than the one which issues them. For example, though in accordance with the general practice, the American Congressional Record, Statistical Abstract, Census reports and so on are classified under DS1 (the number for U.S. Government Publications); handbooks and reports of the U.S. Department of Commerce about Turkey or China would be classified respectively under OI1 and R2, which are the numbers for Turkey and China in the Main Library. The same applies to British Colonial and Department of Overseas Trade reports. The number of publications of this kind which we receive is relatively small, and it has so far been found more convenient to keep them with other books about the country dealt with.

I have also to express my thanks to Mr. Allan Gomme, the Librarian of the Patent Office Library, for the following notes on the acquisition and arrangement of Patent Literature and, as I have little experience of such documents myself, I give you the information just as it reached me.

The Patent Office Library receives the official patent and trade-mark literature from practically all the countries that issue returns, the one or two exceptions being South American republics, which seem never to answer letters or even to receive subscriptions. For the most part this literature is received in exchange for our own official publications, but one or two (Portugal and, I think, Cuba) have to be purchased.

The form of the literature is as follows :

(1) All the important countries, and some of the others, issue special journals, sometimes weekly and sometimes monthly, which deal solely with patent and trade-mark matters. All these are received.

(2) Others issue lists of patents granted and trade marks registered periodically (and usually spasmodically) in their daily official gazettes. These we receive, extract the lists, and discard the rest.

(3) Some of the smaller British colonies supply manuscript lists.

(4) France, Germany, Italy, Norway, Sweden, Denmark, Holland, Austria, Russia, Czechoslovakia, Jugoslavia, Hungary, Switzerland, Poland (I think), India, Australia, Japan, and the United States all issue, in addition to their official journals in (1) above,

specifications of inventions—50,000 a year for the U.S., 30,000 for France, down to the 1,000 or 2,000 for Australia.

We arrange this material on the shelves by countries in alphabetical order, the dominions and British colonies being in one series together, also alphabetically. The journals and extracts from the gazettes are bound in suitably sized volumes. The specifications are also bound, in numerical series for each country, usually 200 to a volume. But for France, Germany, Switzerland, Norway, Sweden, Holland, and Austria we receive a duplicate set of specifications which are arranged in class order according to the particular country's own classification system, and are kept in envelopes, one or more envelopes to each subdivision of the classification. The public have access to the entire series, except the classified sets of specifications for which they have to ask.

Annual indexes when issued are also received and filed with the other material. In some cases where indexes are not issued we make our own.

The various publications are catalogued under the respective countries. The annual accessions of this literature occupy between 400 and 500 feet of shelf space.

The British literature comprises :

(1) Specifications bound in numerical sequence of 100 to a volume.

(2) Name indexes to above.

(3) Official Journal (weekly).

(4) Trade-mark Journal (weekly).

(5) Abridgement volumes. Issued for every 20,000 specifications (just less than one year) in 40 group volumes, with name and subject indexes.

The Library receives the sheets of these volumes as they are printed (some are received each week) and they are cut up, abridgement by abridgement, and pasted on sheets and arranged in the 271 classes of the British classification. These sheets are filed in boxes and kept until the bound volume is received. The abridgements are printed about six weeks after the specification is accepted, so that the Library has a complete classified set of abridgements up to within six weeks of date. (The specifications themselves are printed about two weeks after acceptance.) The Library keeps a MS. card index of names of applicants which is posted daily, and two or three registers showing the progress of application through the Office, which are posted weekly. There is also a slip catalogue of all *unofficial* patent lists, etc., in textbooks, journals, etc.

So far as smaller libraries are concerned, taking only selected patent documents, the best plan is to arrange material alphabetically under the country issuing it, marking any official lists with the location marks of those in the library and giving such cross-references under subjects, etc., as experience shows to be desirable. I would again emphasise here what I have said on previous occasions, that, where catalogues are used by a very limited number of people, it will often be found that paper slips will serve as well as cards for cataloguing purposes, thus saving money and much cabinet space.

It is impossible in a single talk to cover such a large subject as Government publications in any way completely ; I can only hope that I have impressed you with their value as sources of information and that some of the suggestions I have given you may prove in practice of real benefit to some of you who have to be responsible for them.

DISCUSSION.

The Chair was taken by Lieut.-Colonel N. G. Scorgie, C.V.O., M.V.O., Deputy-Controller of His Majesty's Stationery Office. Professor R. S. Hutton, in opening the discussion, referred to the price of Government publications, and said that a reduction in the price would increase circulation. He asked whether the difficulty of calculating the sale affected the price of the publications in any way.

Mr. C. Nowell regretted exceedingly that Mr. Headicar's paper had not been pre-printed, for that would have allowed much more time for discussion. He referred to the fact that, although official publications were freely available to the Library of the London School of Economics, the repeated appeals to the Government to deposit such collections geographically had been unsuccessful. This was a question of public policy, for if these publications were issued for information, surely a deposit collection in large libraries in various areas was the simplest and most effective way of achieving that purpose. The recent developments in regional and national lending and interchange of books meant that these large libraries were, in fact, rendering a national service. At present these libraries—Mr. Nowell instanced Manchester as one—were not aided by the State in any way. *If* help were given to London libraries, he saw every reason for urging that a large industrial area like the North should be similarly assisted. He asked that the influence of ASLIB should be used to persuade the Government to accept this system of deposit libraries for all Government publications. (Dr. Bradford and Dr. G. Pratt Insh also contributed to the discussion.)

Replying to the Discussion, Mr. Headicar made the suggestion that His Majesty's Stationery Office should advertise Government publications in the *Library Association Record,* or some other similar paper.

After expressing a vote of thanks to Mr. Headicar, the Chairman dealt with two points that had arisen in the course of the Discussion. The first was the question of indexing. This, he said, must come from private enterprise, since the Stationery Office was fundamentally for the sale of publications and not an information service. He quoted the *List of Statutes* as the only publication to have an index, and explained that this had been done more or less by accident.

With regard to the question of price, the Chairman said that the scale of charges for a Government publication was reckoned on the cost of printing during a year and balanced with the revenue from the sales. From those figures, the amount one could get for one penny was calculated, and so the price for the next year's publications was fixed. An attempt was made to work on the G.P.O. system, as a public utility.

The vote of thanks was seconded by Mr. Nowell.

The Card Indexing of Abstracts and Research Data, with Instantaneous Cross Reference

By J. EDWIN HOLMSTROM, B.Sc.(Eng.)., Ph.D.(Econ.), Assoc.M.Inst.C.E.

Introduction.

The essential point of the methods described here is that they have grown from practical experience in meeting certain specific requirements. It is probable that similar though not identical requirements arise in quite different lines of research, and adaptations of these methods may, therefore, be found useful by others. The description has been divided into four separate sections in order to stress the fact that no necessary connection exists between what is discussed under each heading: it is hoped, for instance, that any devotee of the Universal Decimal Classification whose soul may recoil from what is suggested in Section 3 will not thereby be debarred from considering the device for Instantaneous Cross Reference described in Section 4, which would work equally well whatever the system of classification adopted.

1. The Utilisation of the Technical Press and of Published Abstracts.

Most technical men make some attempt to follow the periodical press relating to their subject, and in many organisations the practice is followed of passing the journals round for perusal by each member of the staff concerned. It may be worth while to consider for a moment what really are the functions which the technical press is adapted to perform and to what extent, under the customary conditions, its value is in fact realised.

Fundamentally, one may suggest, these functions are twofold: the technical press has in the first place what may be termed a "journalistic" and in the second place a "literary" purpose.

By the former is meant that quality of editorial unity, selectiveness and topicality in a well-run periodical, which gives it character and makes it different from a mere collection of articles that happen to be printed together. This quality, while difficult to define, is a real and valuable one, and offers a valid motive for spending a moderate amount of time in looking through the current numbers of journals to secure a general awareness of what is happening in the field with which they deal.

It does not, however, justify more than this, for perusal of current numbers is not the best way of turning to account the second and more important function of the press which we have called for convenience its literary function, meaning the fact that the columns of periodicals—including, of course, the transactions of societies—form the permanent repository of all such writings on technical subjects as it is not convenient or economical to publish separately.

This proposition needs no further proof than the statement * that altogether some 750,000 scientific and technical papers are published annually in 14,000 periodicals, while in the same period there appear about 14,000 scientific and technical books. Their origins are diverse, they are in many different languages, but any one of these publications *may happen* to be the most valuable for somebody's special purpose—if only he knew of it—and, further, it may happen to remain the most valuable for some time to come, despite the appearance of more recent treatments of the same subject. If, therefore, an individual wishes to secure the best available information on a particular topic with a view to applying it in a particular way, the chances against his having run across it himself in the small group of journals he can find time to look at, within the recent period to which his memory extends, must be hundreds to one, even within a limited field of knowledge.

Now for an individual reader (or a small group of readers co-operating) to take notes of the articles that appear potentially useful, with a view to being able to turn them up again when occasion arises, is merely to duplicate in an amateur and haphazard way what is already being done systematically and exhaustively by the professional compilers of such publications as *Building Science Abstracts, Engineering Abstracts, Road Abstracts,* the abstract pages in *Civil Engineering* (New York) which contain some of the items † that afterwards appear in the annual *Engineering Index,* and the excellent French ones † (covering a wide international field) in *Travaux et Constructions*. (These are merely a few examples familiar to the author—there are, of course, similar series in most other branches of applied science). In the case of books, reviews and publishers' circulars have much the same character as abstracts.

Each of these abstracts tells the reader enough about the contents of the article to which it refers to enable him to decide whether it would be worth his while to consult the original, and within their given fields they cover practically every article that appears in the whole world's technical press. Their value as providing a means of reconnaissance through the jungle of knowledge is obvious.

The point it is desired to make here, however, is that abstracts as normally treated are only half as valuable as they ought to be. The reason for this is the fact that each issue of them covers only those articles that have appeared in the current numbers of the journals and transactions abstracted: hence, if it is desired to make sure of seeing all recent references to a given subject (and to select therefrom the best for some special purpose) it becomes necessary to search through a long series of back numbers of the abstracts. Indexing the subjects of the abstracts (as is commonly done in each annual volume) or indexing the articles themselves independently of abstracts (as is done in the Science Library at South Kensington) only slightly reduces the labour involved, for all that the searcher finds in the index is a complex of numbers and he is still left to turn up each of the references separately, only to discover that most of them are not what he wants.

* S. C. Bradford: "The International Indexing of Scientific and Technical Papers," *Engineering,* February 3rd, 1933.

† These, however, are rather short.

In practice the time and labour involved are prohibitive, except when embarking on a serious programme of research, and the result is that abstracts are not used, as they might be, as means of ensuring that one's ordinary day to day thoughts on technical matters are informed by full awareness of what others have thought and done in regard to each point arising.

What is needed, to secure this, is to carry the organisation one stage further by clipping out each separate abstract, pasting it on a card, and marking and arranging these cards in a systematic way so that they form their own index and so that all the cards on a given topic will at once be found together regardless of the date of publication of the original to which each refers. Moreover an effective system of cross referencing is necessary so that an abstract *or any part of one* which admits of classification under more than one heading will be found with equal speed and certainty when looked for under any of these.

Methods of meeting these requirements are described below in Sections 3 and 4, the author having had occasion to develop them in organising an information service at one of the engineering institutions, on whose staff he was then employed. The object of this was to answer enquiries received (at the rate of two or three a week) from members who wished to read up any of the wide range of topics coming within the field of interest of the Institution, either for research or for application in their professional work. This purpose was effectively served: the most suitable abstracts could be found in a few seconds and a typed copy of them (or of the titles) sent out by return of post; the original articles could then, if desired by the member, be obtained for him. It was even possible to deal with such enquiries over the telephone, holding the receiver in one hand while picking out suitable abstracts with the other and continuing the conversation, so informed, at the same time. Apart from this facility, many members formed the habit of periodically dropping in to the office where the carded abstracts were kept and looking through the growing collections on their particular subjects.

Such a collection of abstracts is particularly valuable where there is only a small library of the periodicals themselves, as it serves as a kind of outlying index to what may be found in the large central libraries. In some cases it might even pay an individual researcher to index his subject in this way (for the work of classifying the abstracts is highly educative) and a service such as that described above would appear well worth while at any centre of study. The labour involved is, of course, the same whatever the number of users of the collection, but is in any case not great and most of it is purely clerical, only the indexing and cross referencing having to be done by someone acquainted with the subject-matter.

The size of cards chosen should not be too small; 8in. by 5in. is perhaps the most convenient, with occasional envelopes of the same size to hold cuttings or other papers too large to paste onto cards. Where abstracts are printed on both sides of the paper it is necessary to purchase duplicate copies. A different colour of card may be used each year so that if the collection grows to an unwieldly size the obsolete abstracts can readily be weeded out.

2. The Carding of Research Data.

The success of the arrangement described above has led the author to form a collection of cards for a rather different purpose in his present work, which is what is known as " commercial research " in an industrial company whose interests are exceptionally wide. The work involves service on various technical committees concerned with development, maintenance of touch with certain branches of industry, investigations of new manufacturing propositions, and—principally—the compilation of " industry reviews " affording a general survey of the economics, the organisation, and the trends of some outside industry.

To do this it is necessary to become a kind of technological and statistical jackdaw, continually gathering all sorts of odd scraps of material from the most diverse sources with at first only the vaguest ideas as to which of them may turn out to be of value or how they can be put together. The utility of such data as this depends on their juxtaposition : they are of little use (however well indexed) if buried in separate books and correspondence files ; one must be able, as it were, to play a game of patience by laying them on the table together and trying different arrangements, and one must be able, by merely turning in one's chair, to pick out any required item of facts or figures.

This is accomplished through the simple expedient of putting everything on to cards and classifying these as described in the next section. Some of the cards have abstracts or press cuttings pasted or copied onto them, others have photostats of statistical tables or folded sheets of typed or printed memoranda attached by paper fasteners, others, again, contain records of interviews, rough notes or tentative ideas and calculations typed or scribbled in ink or pencil—but all are of the same size, 8in. by 5in.

There is, perhaps, nothing very remarkable in the idea of keeping one's notes on standard cards instead of on other forms of stationery. The point worth making here, however, is that if—as described in the next section—the classification of the carded data is made to ramify progressively in the directions which are automatically suggested by the subject matter of the new cards continually being added, then the skeleton of the report one is endeavouring to write will gradually take shape of its own accord before one's eyes, and all one has to do is to recast the subject matter of the cards in a more literary form and order.

3. Classification by Successive Keywords.

The author wishes to say nothing whatever against the Universal Decimal Classification except that it has the defects of its qualities, and that these unfit it for the purpose described in the preceding paragraph. What is needed here is something of the character of the British constitution by contrast with written constitutions : not pre-plannedness but spontaneity of growth, not symmetry but flexibility, not so much soundness of logic as freedom of adaptation. Moreover, it is essential that the system should be directly mnemonic.

This has been attained to the author's practical satisfaction by borrowing from the U.D.C. the principle of working down from the general to the particular, and of making it possible to continue the

process of subdivision indefinitely, as and when necessary—but instead of the subdivisions being standardised beforehand they are left to be invented in accordance with the growth of the subject matter, and instead of their being indicated by successive digits of a decimal number they are denoted by words (or abbreviations of words) according to which the cards are arranged in alphabetical order.

One essential detail, in making this workable, is that the word " All " or " AAA " is used for the same purpose as the zero sign in the decimal notation. The importance of this will presently be clear.

In the collection of abstracts described in Section 1 the cards relating to the less prolific subjects needed only a single word, such as ASBESTOS or SLIPWAYS. As soon as more than a dozen or so cards had accumulated under a given first word it was found convenient to decide on a principle of subdivision suited to the particular subject, and this was indicated by the addition of a second word, accordingly, on each card. In the same way a third, fourth, etc. word might become necessary. One of the fullest groups of abstracts was that under BRIDGE(S), and here the classification involved four words—first the word BRIDGE, then the material, next the type of bridge, finally the kind of reference made to the bridge ; for instance :

BRIDGE	CONCRETE	ARCH	DESIGN
BRIDGE	STEEL	TRUSS	ERECTION

and so on. An abstract of a paper discussing the general subject of arched bridge design without reference to any particular material would be classed under—

BRIDGE	ALL	ARCH	DESIGN

the word ALL, beginning with A, having the effect of placing this card in front of those on which a particular material was named in the second word, without affecting the sequence of the classification in the third word. Similarly, one might have—

BRIDGES	ALL	ALL	FOUNDATIONS

The scheme of classification under each heading is shown on the flagged guide-card which marks the beginning of each group of cards. As it was desired that the collection should be usable by anyone without the need for explanation, plenty of these guide cards were inserted and the keywords were not abbreviated.

The carded notes described here in Section 2 are classified on the same system, but the keywords (as soon as they have become familiar) are shortened to the first few letters of each, in which form they take little longer to write than would the digits of a decimal system, yet remain mnemonic. The following examples are taken at random from the cards containing data gathered in the course of various investigations :

Air-conditioning	*App*lications	*Com*fort	*Ships*	*Queen Mary*
Air	*App*	*Com*	*Theatres*	
Air	*App*	*Ind*ustrial	*All*	*Health*-effects
Air	*App*	*Ind*	*Bakeries*	
Air	*App*	*Ind*	*Fruit*	*Bananas*
Air	*Dev*elopment	*All*	*Tropics*	
Air	*Dev*	*Japan*		
Air	*Mat*	*Cu*-copper	*Motors*	
Air	*Meth*	*Dehum*idification	*Absorb*tion	*Silica-gel*

*Bui*ldings	*Archi*tecture	*Flats*		
Bui	*Eco*nomics			
Bui	*Mat*erials	*Conc*rete	*Rein*forced	
*Conc*rete	*Admix*tures	*Clay*		
*Hous*ing	*Slum*-clearance	*Pro*gress	*Scot*land	
*Ref*rigeration	*App*lications	*All*	*Dev*elopment	*U.S.*
Ref	*App*	*Brew*eries		
Ref	*App*	*Ice*	*Grimsby*	
Ref	*App*	*Ice-cream*		
Ref	*Manu*facturers	(Names)		
Ref	*Meth*ods	*All*	*History*	
Ref	*Meth*	*Steam-jet*		
Roads	*Acci*dents	*G.B.*		
Roads	*Accid*	*G.B./U.S.* (comparisons)		
Roads	*Ancil*laries	*All*	*Conc*rete	
Roads	*Ancil*	*Fences*		
Roads	*Ancil*	*Signs*	*Germany*	
Roads	*Fin*ance	*G.B.*	*All*	*Plans*
Roads	*Fin*	*G.B.*	*London*	
Roads	*Mat*erials	*All*	*Manufrs.*	
Roads	*Mat*	*Conc*rete	*Ready-mixed*	
Roads	*Types*	*Cement-bound*	*Costs*	
Roads	*Vehi*cles	*All*	*Railway-owned*	
Roads	*Vehic*	*Legis*lation		
Roads	*Vehic*	*Tax*ation		

Some of these indications may appear odd and arbitrary when removed, as here, from their neighbours in the set—but that is simply due to the fact that they have *grown* to their present form instead of being planned, and are convenient for the purpose of the particular investigation to which they appertain.

4. Instantaneous Cross Reference.

It often happens that the subject matter on any given card might be classified with equal logic under more than one heading, or, still more frequently, that one card contains potentially useful information on a considerable number of different points. For instance, an account of the construction of a reinforced concrete jetty might contain valuable incidental references to new formulæ for calculating the bearing power of piles, test results obtained from a special type of cement, the kind of deterioration suffered by an old timber jetty on the same site, the design of bollards, and other diverse subjects.

Obviously the possibilities of a collection of abstracts will be largely wasted if information sought for under its natural heading is buried elsewhere as a result of chance association with another topic. It would involve far too much copying work, however, to duplicate the wording of the same abstract (or portions of it) under a number of different headings. The alternative of inviting the searcher to start out on lengthy treasure-hunting games of "see under——" and "see also——", by means of otherwise blank cards marked to that effect, cannot be regarded as satisfactory and usually defeats its purpose by the irritation engendered.

A simple solution to the problem, which makes the cross references even quicker to find than the direct references, is shown in the figure. Readverting to the example suggested above, the original abstract is filed under its most obvious heading,* Jetty Concrete, and a

* *Mutatis mutandis* for any other system of indexing.

JETTY CONCRETE

639. NEW REINFORCED CONCRETE JETTY AT DUNFLEET :—
J. E. SMITH : CONCR. ENG., 36 (*14*), 73-81. The construction of a new jetty at this point was made necessary by .....etc.

PILES BEARING-POWER

J | RED

coloured signal (let us say red) is affixed in any previously unused position on its top edge ; other cards are inserted under PILES BEARING-POWER, CEMENT, TIMBER DETERIORATION, SEA-WATER EFFECTS, TEREDO, BOLLARDS, etc. (as many as desired), bearing simply the arrow-head and the direction " J *red* " which means " look among the J cards for a red signal in this position and you will find what you want." No copying, even of the title and source, is involved, and the arrow-head cards are so quickly prepared that there is no temptation to be parsimonious in inserting them.

As an 8in. card has thirty-two available positions for signals, and these can be obtained in a dozen different colours, and the combinations can be used separately in each letter of the alphabet, there is little danger of exhausting them (and in that unlikely event combinations of colours could be used).

Sometimes it is convenient to introduce a signal which has the same indication throughout the collection, in which case the originating arrow-head card is marked " A–Z." In the aforementioned abstracts of engineering matters, for instance, a blue signal in a particular position always meant something to do with welding (thus, if stuck on a card among those about concrete bridges it meant that the steel reinforcement therein had been welded), and a yellow signal in a given position indicated the presence of some information as to costs or economic aspects.

If these instantaneous cross references are provided—and in practice the adjective really is justified—it does not matter much if the original classification applied to a card in cases of doubt is wrong, provided an arrow-head card is inserted in any alternative place where the information might conceivably be looked for.

DISCUSSION.

The Chairman, Mr. W. C. Berwick Sayers, in introducing the speaker, said that the work of the research worker depended on the sufficiency, rapidity, efficacy, and accuracy of the indexing. At the close of the paper Miss G. Guiney presented a note on "The Abstracting of World Literature on Forestry," by J. N. Oliphant, Director Imperial Forestry Institute. Forestry literature nowadays is so voluminous and diverse that the average practising forester cannot find time to read more than a very small fraction of the whole output. It would help him greatly in selecting matter for reading if he could have access to summaries of all important literature, and there can be no two opinions as to the desirability of making such summaries available in language with which he is familiar. The difficulties are that he is not in a position to contribute substantially to the expense of producing such summaries, and that their preparation, where it has to be specially undertaken, is in present circumstances costly owing to the laborious nature of the work involved. The only hope of a satisfactory solution seems to lie in international co-operation for the avoidance of duplication of effort, and, having regard to the progress already made in securing such co-operation, it seems not too much to hope that it may be directed into this channel.

If those responsible for the publication of forestry literature were to insist that every major contribution should be prefaced by, or have appended to it, an "author's abstract" or summary, outlining its contents in one of the three primary languages —French, German, or English; and if, further, they would adhere to a convention *waiving* copyright and translation rights in such summaries (though not, of course, in the articles summarised), the problem would, in the writer's opinion, be far on the way to solution.

What are the chances of arriving at such agreement? The practice of appending authors' summaries to important articles is already widespread and appears to be extending. Apart from such pressure as could be applied by editors or publishers, the consideration that an article not so summarised would be liable to be overlooked would influence authors who had not been accustomed to preparing such summaries to do so thenceforward. The author of an article is usually the person best qualified to summarise it, and can do so, while the contents of a newly written paper are fresh in his mind, in a fraction of the time required by anyone unfamiliar with its theme; and, apart from the higher quality of summaries thus produced, the saving in labour and cost of abstraction would be immense.

As to the proposed waiver of copyright and translation rights, it is difficult to see how the reproduction of summaries, in original or translated, whether they were to appear in recognised abstract periodicals or to be circulated for private or official information, could possibly be detrimental to author or publisher. It would much more probably be definitely advantageous, in that the summaries would have an advertising value similar, for example, to that of the outlines of contents appearing in publishers' catalogues and leaflets. After all they are no more than mere outlines, and, while informing the practising forester of the main theme of many articles that he would never have leisure to read in full, would not relieve the specialised worker from the study in detail of papers relating to his own field of research; rather they would direct his attention to documents that might otherwise escape his notice, and thus tend to increase the circulation of the publications in which they were contained.

It would be advisable to standardise, by agreement, the length of summaries and, possibly, their form, but these would be matters of detail. There is little doubt that the practice of appending authors' summaries could, by common consent, be generally established in a relatively short time; the crux of the matter seems to lie in the copyright question. Legal opinion would have to be sought as to the form that the waiver should take; but if the principle were agreed to, that, again, would be a matter of detail. It seems desirable that the waiver should be general and apply to anyone wishing to take a copy or make a translation of any summary for whatever purpose: it is unlikely that the established abstract publications would suffer

thereby, as the demand for assembled abstracts printed and published in convenient form would be certainly no less, and probably in the circumstances stronger, than it is at present. Duplication of effort, such as the reproduction of identical summaries in the same language in different abstract periodicals, should not be difficult to avoid by mutual agreement and with general good will.

It is unnecessary to elaborate the proposal further pending consideration of the question of principle involved. In the general interest of world forestry the advantages of a convention on the lines indicated seem obvious enough. There may very possibly be hidden difficulties, which, however, are not necessarily insuperable, and which this memorandum may at least serve some useful purpose in bringing to light.

[Professor Hutton contributed a written note to the effect that Miss Guincy's point deserved wide attention and it might be worth while to refer to papers on the subject by Gordon S. Fulcher in which the basis of more highly organised "analytical abstracts" is laid down and the usefulness of appending individual abstracts to original scientific papers is discussed (see *Science,* September 30th, 1921, and December 15th, 1922, also published by U.S. National Research Council, R. & C. Series Nos. 21 and 40).]

Dr. S. C. Bradford said :

Dr. Holmstrom's account of his personal experience in the indexing of abstracts and research data is valuable, because, as he says, his experience is likely to be similar to that of others. He makes a number of points, in which I fully concur. It is impossible for a research worker to secure the best information on a particular topic from the comparatively small group of periodicals he can find time to look at. He must rely on the abstracting and indexing periodicals. But these publications are designed to show generally what is being written at a particular time, but not what has been written upon a particular subject, irrespective of date. They give a good review of current work, but to find what has been done about a special topic needs the consultation of indexes and back volumes and parts at a great expenditure of time. The abstracts need to be classified, so that they can be mounted on cards and cumulated in an index, where all the references to each subject fall together. This is a most important point, and I am very glad that Dr. Holmstrom has referred to it again.

Like other intelligence officers, Dr. Holmstrom finds it worth while to mount these abstracts and classify them himself. It would save labour if it could be done once for all. For mounting Dr. Holmstrom recommends eight by five cards. This is the most convenient size, if it is wished to keep all the abstracts in one series, but where economy of space is necessary it will be found that the majority of abstracts will go on two sides of five by seven cards. In the Science Library we use both sizes. A number of abstracting periodicals now use the Decimal Classification. Their abstracts are filed in the Library Subject-Matter Index, and it is very convenient to be able to see the abstracts together and thus save time in getting out many of the papers themselves.

Another point is that much of the information on a particular topic is hidden by chance association with another topic. The method of cross reference, so often adopted, is unsatisfactory, and usually defeats its purpose. I agree entirely.

Dr. Holmstrom proposes a simple solution, the use of colour signals in combination with letters and arrows. This may well be a new convention, and it seems likely to be effective in a small index, but I am afraid that it would not work in a large one. I have verified, from the Library Subject-Matter Index, that most of the letters of the alphabet would be required for the single subject of the strength of piles. The number of subjects that can be cross-referenced in this way is thus reduced to the number of colours multiplied by the number of positions, i.e. 384, instead of the hundreds of thousands that would be needed in a large index. A more serious defect is that the signals have no definite places in the scheme. To look through a million cards to find a red signal in a certain place would take too long.

The use of the Decimal Classification is simpler : it requires merely the insertion of a card with two numbers, that of the subject in question and that under which the reference will be found. The seeker goes straight to the drawer containing cards with these numbers in the reversed order.

Dr. Holmstrom makes some courteous, but scathing, references to the Decimal Classification.

He is afraid that its devotees may revolt from his suggestion. As one of them, I would like him to understand that I have every sympathy with those who prefer the alphabetical method—it converts the business of indexing into an intellectual pastime. Dr. Holmstrom mentions the games of Patience and Hunt the Treasure.

I should place it on a higher level. What endless possibilities are offered in choosing a heading for even a single paper.

Here is a title of a paper I happen to remember: "The manufacture of tungsten and chromium alloys for bits for shaft-sinking machines for oil wells." There are ten significant words in such a title. Any one of these words may be chosen as a heading, singly or in combination with any, or all, of the others. There are just under ten million possible arrangements altogether, and that without counting synonyms. What a field for the imagination!

Having chosen our heading, we may have occasion subsequently to remember it, either in order to index a similar article, or to find the entry. This is good training for the memory. If we find it too irksome, we have to undertake to compile a list of the headings we are likely to need. This is a task of considerable magnitude, which is never finished, because such a scheme is ever-growing. Moreover, we have the satisfaction of knowing that we have produced a classification which is entirely original, and that our bibliography can never lose its identity, since it cannot be amalgamated with any other.

This is the difficulty, which Dr. Holmstrom has appreciated, because, sometimes, we have to consult the other fellow's bibliography, and, then, we have to make a long search.

How much simpler it would be if we all used the same system, so that all our bibliographies could be amalgamated into one series.

Dr. Holmstrom rejects the Decimal Classification, in a single sentence, as being unsuitable for the purpose. I am glad to be able to say that such statements can be accepted no longer. When a business firm, such as the Royal Dutch, uses this classification to index 150,000 references annually to scientific and technical literature, with a staff of three men, there can be no question as to the efficiency of the system.

Mr. Theodore Besterman stated that he had himself advocated a very similar system for some years. He agreed, in particular, that Dr. Holmstrom's method was superior to Decimal Classification for the particular purpose in question. He pointed out that the method had, however, one serious defect in that it did not include an author index.

Mr. B. K. Kelly pointed out that, in a relatively small information bureau, with a limited sphere of interest, a fixed system of headings would probably be found sufficient for all requirements. In his experience he had found it convenient to have all abstracts typed on cards, thus facilitating the sifting-out of matters of interest. With regard to the author index, he had found the need for this to be practically non-existent.

Dr. Holmstrom, replying to the discussion, thought it would be an excellent plan if abstracts were printed with the original articles (as proposed in reference to Forestry), especially if they had nothing (or advertisements) printed on the back, so that they could be cut out for carding without mutilating the journal. An example of pre-classified abstracts (on an alphabetical system which he, personally, did not like) existed in the American Engineering Index *Service* (as distinct from the annual volume) which undertook to supply weekly batches of these abstracts ready carded, but this service was expensive. The observations of so great an authority as Dr. Bradford were particularly valuable and Dr. Holmstrom agreed that the methods he had described would not be suitable in a large central library; they were essentially personal methods for use in a small office and in constructive research work, as distinct from the mere storage of knowledge, the fact of building up the classification step by step with the growth of the subject-matter, instead of accepting someone else's map of a region of knowledge one had not yet explored oneself, was to be welcomed as a stimulus to systematic thought on the subject in hand.

Nevertheless, he thought that Dr. Bradford had, perhaps, underrated the scope of the methods and he could not agree that the cross-referencing by coloured signals, as described, was not quicker than the use of the Universal Decimal Classification alone. He demonstrated, on a drawerful of his cards which he had before him, how instantaneously the signals were found when an arrow-head card was taken out of the cabinet and was passed over the top edges of the cards in the appropriate batch, until the signal of the required colour appeared under the arrow-head. If this device were applied to cards indexed on the decimal system, the arrow-head would be marked, for instance, 621.346 *red*, instead of with the initial letter of the cross reference as described in the paper—giving sufficient digits to obviate having to look through more than one drawer to find the required card. If cards smaller than eight by five inches were preferred, it was convenient to have

a supply of folded cards to take abnormally lengthy abstracts; in any case, both sides of the cards could be used. If an author index were desired, cards bearing authors' names could be interleaved with the others and cross-referenced to them by the method described. Finally, Dr. Holmstrom said he wished to take the present opportunity of drawing attention to a very valuable article by Mr. R. Brightman, entitled "Organisation of Information for Industry; the Industrial Library and Intelligence Service," which had appeared in the current number of *The Industrial Chemist*.

The Film in Industry: the Development of "Non-Theatrical" Cinema.

By JOHN GRIERSON.

We have become so accustomed to listening to the ballyhoo of the film theatres that we miss many of the other important developments in the world of cinema. It would, of course, be foolish to deny the importance of the film theatres. There are four thousand five hundred of them in this country, and every week twenty million, every year a thousand million people visit them and submit to their influence. Obviously an influence so wide and intensive must have a considerable effect on the sentiments and loyalties and opinions of the people. But the influence of the popular theatre is limited. It is limited by its own success.

The more you look for a world market in the matter of entertainment the more you are limited in your formulae. You must appeal to different nationalities, different classes, different levels of intelligence and culture. You must find the common factors of appeal over a heterogeneous mob of differing interests. You are forced inevitably to regard your article of commerce in the same way as Woolworth and any other of the cheap and universal providers. You are forced to the more or less exclusive pursuit of sensation and romance. Guy, girl and who gets who is sure fire—and very little else is. No matter how big our producers may talk, that is the little law which enslaves them. Whatever their pretentions about art and the public welfare may be, the cheap and the easy controls them.

And yet, on the face of it, cinema can do a great deal more than pursue the everlasting epic of girl, guy and who-gets-who. From an æsthetic standpoint it is clear to most of us that the film can do something more penetrating than the simple narrative of personal romance. With all its powers of orchestrating sound and mute it can obviously create poetic forms, symphonic forms and dialectical forms and handle excitingly a large variety of themes. Some of us have thought and written about these possibilities, and a few of us have had the good fortune to experiment in the new fields. In Russia, with Eisenstein and Pudovkin, there has been a great deal of interesting experiment. In the so-called *avant-garde* of France there was more experiment. Here in England we have benefited from a Government sponsorship. We used the now defunct Empire Marketing Board and, more recently, we have used the G.P.O. to bring new material and fresh forms to the screen. We have been able for the first time, for example, to give the composer and the poet an opportunity to enrich the sound structure of cinema, and *Night Mail* is one example of the effect. We have allowed our men to experiment with the dialectical form in *Song of Ceylon,* and a very powerful and beautiful film some people have found it.

But the trouble with the æsthetic approach is to find money for it. The Russians are fortunate, or at least they have in the past been

fortunate, for they were allowed to do more or less what they liked; and we at the G.P.O. have been fortunate too, because we have had the backing of a man of imagination in Sir Stephen Tallents—a man who realised from the beginning of his work in propaganda that there is nothing so effective as being imaginative about it. Unfortunately, there are few Government departments who know how to use artists and there are few propagandists with as much foresight as Sir Stephen Tallents. And the æsthetic point of view has little chance of survival in a hard and somewhat commercial world. The French *avant-garde,* the only known attempt to make an æsthetic cinema self-supporting, lasted just as long as the private fortunes of its friends. One survivor, Mr. René Clair, is with Mr. Korda making commercial films. Another, Mr. Cavalcanti, is with myself.

But this is not the disaster it sounds. Another cinema has grown up in the meantime, and a more important, more solidly founded cinema than any pure artists' cinema could be. Many of you may not have realised it in the noise that emanates daily from Wardour Street and in the fanfares which issue from the somewhat gushing film critics of the Press, but you may just possibly have heard that the Church is interested in cinema—that English church, Methodist church, Roman church, and Scots church are setting up their film guilds and buying their 16mm. projectors. You may have heard that Gas is interested, that Electricity is interested and it is my fault if you have not heard that the G.P.O. is interested.

But let me give you a more complete picture and you will realise the phenomenal scale of this new cinema. All the Dominion Governments are making and showing films. Canada, with the biggest unit, is circulating fifty films at the present moment in this country. Australia, South Africa, New Zealand have others. There are films from the Rhodesian Government, the Malayan Government, the Ceylon Government, the West Indies and British Guiana. In this country we have the G.P.O. making a large number of films—fifteen a year. The Ministry of Labour makes films, so does the Ministry of Agriculture. The Ministry of Health and the Ministry of Transport co-operate whenever they can in the making of health and road films. The D.S.I.R. makes its own films and so do some of the research stations. The Navy makes its own films. The Air Ministry and the Army make films for both research and training.

That is only the beginning of the list. Gas, electricity, Austins, Morris, Ford, Daimler, Shell, Anglo-Iranian, Imperial Airways, Anglo-American, Dorman Long, the glass people, the pottery people, the cement people, the co-operatives, the railways, the seaside resorts, the Industrial Development Associations, the Methodist church, the Scots church, the Roman church, the tea people, the pill people, the cocoa people, the soap people, the chemical people—every one of them is in the film business and has either made or is now making films.

There you have a picture of the people who are behind the new cinema. From these organisations every day, every week, the films flow out. They are not going to the theatres of the old cinema; they are going to the theatres of the new—to the church halls, the meeting rooms, the discussion clubs, schoolrooms and college rooms throughout the country.

Some of the films do, as a matter of exception, go to the commercial theatres—such a film for example as *Night Mail*—but none of us in the new cinema thinks very seriously of the theatres. They give a certain amount of splashy publicity, but all of us who think seriously about the matter would sooner show our films in a hall like this than in the Carlton in the Haymarket. This very gathering represents the audience we seek and the audience we are building up in millions throughout the country. It is a better audience, not because we represent here a better species than the people who go to the theatres. We are the same people—the difference is one of mood. When we go to the theatre we go for the most part to be amused. Here we come less for amusement than for discussion. It is as a medium of information that we are making films for the new cinema, and it is as a spur to discussion that we are circulating them.

One of the curious points about this new development—and one that I never fail to get some satisfaction in—is that Wardour Street has not noticed it. With their resplendent picture palaces, with gold fronts and palatial lavatories, they have missed the accumulative importance of these little shows in the halls round the corner, and yet there are a lot of these halls. There is something like a hundred thousand of them—a hundred thousand halls against the four thousand five hundred theatres. In seating capacity I am not sure we have not the best of it. In the good will of our audience we have certainly the best of it. The audience is no more than possibly ten millions a year now as against the thousand millions of the theatres, but consider the possibilities. Checking up the other day on the potential audience of the new cinema I found on record thirty-two thousand adult audience groups and seventy-six thousand juvenile audience groups—a hundred and ten thousand audiences of a hundred each for four or six or eight or ten times a year. With that audience in front of us you will understand why some of us, like Mr. Hoare and myself, are not worrying about the theatres. We do not need them. And we have one advantage with our audience—it is without entanglements. The audience of the ordinary theatre is, by its mood and by its capital, tied to the elementary and even moronic forms of fiction. The audience of the new cinema on the other hand wants information and wants discussion. It challenges us to give it something more solid. It opens the cinema to a thousand fields of serious and honourable work, and every educationist, every social worker, every churchman is there to help us.

Every time I think of this new field I think of the thousands of winter syllabuses—of the lectures on literature, public affairs, social problems, health, housing and hygiene, cookery, agriculture—which are one of the mainstays of our public efficiency and public opinion. The film is getting into these winter syllabuses. It is taking over the duty of teaching and the duty of explaining, and it is becoming gradually a means by which the public discussion of the country is being revitalised—a means by which the affairs of the nation are being brought alive and the expert word is being spread to the people.

It is into this setting that I want you to put any discussion of the film in industry. The worst of these discussions on the film in industry is that they so often turn into a narrow consideration of what the film can do for marketing the products of industry. I do not suppose

many of us are finally interested in who sells the most soap or markets the biggest pills. You can turn the film into a grocer's assistant, and very easily, but the other larger function is more exacting. It is on the community aspect of industrial films I believe you should concentrate.

The distinction of this point of view is summed up in the phrase "public relations." When that phrase was first used in this country, and it was, I think, at the Empire Marketing Board, it was because we wanted to avoid the word "advertisement." We were, of course, interested in the welfare of the Empire commodities we sponsored—the apples from Canada, the raisins from Australia, the steel from England—but it seemed to us that marketing might be considered in deeper terms than bill boards and slogans permitted. We drew a distinction between background education and foreground advertisement. We laid our plans so that we would describe the Empire in new terms—no longer in terms of conquering armies, romantic pioneers and waving flags, but in terms of a commonwealth of peoples, busy in the daily work of their factories and plantations, and straddling the earth with the everyday colour of their commerce. We never talked of selling anything, we talked of bringing it alive, and in the few years we had to work at the Empire Marketing Board I think we came near to changing the connotation of the Empire.

What happened was that the moment we began to talk that way we found ourselves out of the field of publicity and into the field of education. We found that our posters were taken up by schools and made the basis of geography lessons. We found that our discourses on cookery were sought eagerly by cooks and housewives all over the country. We found that our films were initiating a new aspect of education in thousands of schools. We were showing man and his work. We were impressing people with the dignity of labour and the honour of the contemporary life. Our drama was manufacture; our field of romance was the field of commerce; and every effort in research was a ride to the rescue.

When we talked of the documentary film, we meant that we would take our stories out of the living fact and we believed that by studying industry and commerce and modern research and organisation we would not find ourselves short of stories. We were not the worse salesmen for that, and I do not think we served industry worse by taking the public relations viewpoint rather than the publicity viewpoint. In crystallising and directing the public sentiment with regard to certain aspects of industry we may even in the long run have served it better. I came across the other day a curious tribute in *The Bookseller*, the organ of the publishers—a curious tribute because it testified eight years after to the result of an experiment we ourselves made in the dark. The Empire Marketing Board's first film was a film called *Drifters*, about the herring industry. Arguing along the lines I have suggested, we decided that the best service we could do for the herring industry was to dramatise it. There was no direct advertisement. No one was asked to buy herring or was recommended to a kipper. We merely showed the sweat and toil, and the beauty and the drama of wind and weather, that went to a herring catch. All sorts of experts disagreed with us. We were told that to sell anything you must shout and shout again. But we quickly noticed something. When the film

came out it did look a bit dramatic and it did make the fisherman reflect the honour of his job—but one curious result was that the people who worked at the Empire Marketing Board began to eat herring, and here in *The Bookseller* a week ago is Mr. Harold Raymond testifying that he has been doing exactly the same. This is what he says : " I saw it some ten years ago and was very much impressed by it. Did I come out of that picture registering a vow to support the stout-hearted fishermen by eating a herring for breakfast every other day of the week? Nothing of the sort. If you had asked me at the time whether the film would have any effect on my consumption of herrings I would probably have laughed at the idea, but if you ask me now whether I have eaten more herrings since and as a result of seeing that film I will say quite positively that I have eaten at least twice as many per year. This change of habit has not resulted from any conscious and deliberate intention. The effect of that sort of publicity is subconscious. The glamour, the thrill and the sheer interest of that film pulled the humble herring out of the bottom drawer of my mind and left it lying about on top ; so that when a waiter peremptorily utters ' 'Erring or 'am ? ' in my ear, I automatically say ' 'Erring.' "

But leave that example aside, except that it demonstrates another relationship between Citizen Raymond, publisher, and Citizen Goodlad, fisherman. What is important is that the needs of industry are the opportunities of education, and from the simple beginning of *Drifters* we have to-day built a powerful educational machine. We are describing the life of industry and commerce to the people. We are telling them how the modern world works, and we are doing it not only in the interest of industry but in the interests of the nation. We are giving it a more real sense of citizenship. We have here to-day at least one representative of the Board of Education, and I am happy to inform him that the Board of Education has had nothing to do with it. They have been too conservative even to encourage us. Over this new education of ours fly the banners of gas, electricity, oil and the Gas Light and Coke and of the many other commercial organisations who have taken their public relations seriously and imaginatively.

The possibilities are enormous, as you may gather from the description of the films which are now in course of preparation. In the G.P.O. we are making a film called *Calendar of the Year,* which will describe not just the national events of the year but the organisations and work which lie behind them. A film on the national finances is probably the first film ever made about money and its operations. We are making a film about road transport and the troubled history of the roads over the past ten years. In conjunction with the Swiss Government we are making a film of the paradox of the modern citizen—the fact that he is so national in his traditions and so international in his economic machinery. Gas is completing a film on nutrition, describing the researches that have gone to our understanding of vitamins and protective foods and indicating a new national standard—and this, I think, is the most important film that is likely to appear this year. From gas, too, we are to have a first series of cookery films which may be the beginning of a new nation-wide service in domestic instruction. From the book publishers has just come Mr. Rotha's *Cover to Cover,* an impressionist study of how books are made and what they mean to the modern reader. Oil is

also dealing with the road problem and making a film on *Roads of the Future*. Scotland Yard will very probably appear in a study of the modern police system. To meet the new demands outside the theatres, units are operating here and all over the world. The Canadian Government is planning a bigger programme than ever and is to give us films of the prairies, of the exploitation of Canada's water power and of the development of Canadian railways. Gaumont British is making records in the West Indies and is building up a spectacular series of biological and physical training films. An American unit has just gone to the Far East and will describe the problems of India and China. India is thinking of setting up its own production centre so that it may send us more films of the life of the country. So is Turkey, so is Brazil and so is Egypt. And these are only some of the growing points in the new field. The new cinema is growing and it is growing all over the world. And I hope now you have heard of it you will not worry too much when they mention Hollywood. Social workers, educationists, publicists and artists—we have our own cinema world to build. We have our own system of theatres if we care to occupy them. We have our own audiences and our own sources of finance : and we can pursue our own social purposes.

DISCUSSION.

The Chairman, Mr. F. A. Hoare, referred to the sub-title of Mr. Grierson's paper, and said that the rapid development during the last two or three years of the use of films for the purpose of research, education, and advertisement was due in the main to three reasons :

1. That the public were beginning to take the film seriously as a method of presenting facts and disseminating propaganda.
2. The establishment of facilities for the display of films in places other than cinemas, so that the distribution problem was by way of being solved.
3. That films could now be made comparatively cheaply ; that a film costing thousands of pounds five years ago could be obtained to-day for so many hundreds. He said there was a growing realisation on the part of firms of the application of films as a means of disseminating information and mentioned the gas and electricity industries, motor cars, foodstuffs, machinery, patent medicine, etc. He noted that one manufacturing concern alone had already arranged 20,000 such exhibitions to take place in the next eight months. But Mr. Hoare pointed out that to succeed the non-theatrical film must be as good as that used for entertainment.

After the paper, Mr. Hoare said that Mr. Grierson need not worry about the title of his paper since it was well covered by the breadth of his survey. He said that this new and pioneering work of Mr. Grierson's had had a tremendous effect throughout the world.

Mr. Wilkie (Board of Trade) recounted how he saw the first film produced by Mr. Grierson for the Empire Marketing Board in 1927, and how Mr. Grierson's prophecy on that occasion had been justified by future events. He described the difficulties which Mr. Grierson had to face, the tight-hold on the privy purse and the fact that the film was considered then a vulgar means of arousing the public interest. In fact there was a vicious circle—the Empire Marketing Board would not install projectors for educative purposes, and no films were made because there were no projectors. Mr. Grierson started to break through this circle. His first contribution to documentary film work was the evolution of a film catalogue which was an index of non-technical films. Then the Empire Marketing Board started a film library at the Imperial Institute, and then came Mr. Grierson's film *Drifters*. The Empire Marketing Board had never tried to advertise, but merely aimed at the creation of a background, to bring thoughts together in people's minds, and they assumed always that the audience was composed of intelligent thinking people.

Mr. T. Besterman and Mr. E. Simon also took part in the discussion.

Three films, *Night Mail* (abridged edition), *The Private Lives of the Gannets*, and *Granton Trawler*, were then shown.

NOTE BY THE BRITISH FILM INSTITUTE

It is thought that the following particulars may be of interest to those individuals or firms which may be contemplating the possibility of providing and distributing their own films.

The following film companies and organisations are specialising in the production of educational, scientific, and industrial films :

Associated Realist Film Producers, 33, Soho Square, London, W.1.
British Utility Films, Ltd., 10, Regent Square, London, W.C.1.
Gaumont-British Instructional Films, Ltd., Film House, Wardour Street, London, W.1.
Graphic Films, Thames House, Millbank, London, S.W.1.
Publicity Films, Ltd., Filmicity House, Upper St. Martin's Lane, London, W.C.2.
Revelation Films, Ltd., Bush House, Aldwych, London, W.C.2.
Science Films, Ltd., 27, Clareville Grove, London, S.W.7.
Steuart Films, Ltd., Chelmsford Studios, North Fambridge, Essex.
Strand Film Company, Ltd., 37–39, Oxford Street, London, W.1.
Western Electric Company, Ltd., Bush House, Aldwych, London, W.C.2.

These companies are prepared to provide one or more of the following services:

1. Advice to bodies desiring to have films made.
2. Preparation of scenarios.
3. Drawing up of complete production programme.
4. The production of films.
5. The taking of the responsibility for the production of films by qualified units.
6. Provision of film directors to handle complete production programme.
7. Arrangements for all types of distribution.

There are a number of firms and film libraries marketing projection apparatus and distributing educational, scientific, and industrial films. A leaflet containing a complete list of these companies, of the types of apparatus and of the types of films, can be obtained from the British Film Institute, 4, Great Russell Street, London, W.C.1, price sixpence.

The Western Electric Company specialises in offering a complete projection service to organisations and industrial companies wishing to show industrial films to audiences in places other than commercial cinemas. Their road show service enables advertisers to use films for direct selling, introducing a new product, consolidating a market already won, or fostering retail co-operation. Gaumont-British Equipments also are prepared to provide a service for the distribution of films.

The Organisation of Industrial Intelligence in India.

By M. R. KALYANARAMAN, B.A.

Librarian, Industrial Research Bureau, Government of India.

I would request you at the outset to bear in mind that the views expressed in this paper are strictly mine and that they are not necessarily the views of either the Government of India or the Industrial Research Bureau.

I am sure that all of you present here know that India is trying to industrialise herself rapidly and that the Government of India and the various Provincial Governments are assisting the growth of industries. But, I am not quite so sure that you know the details of such industrial development, or the present position and future prospects of all the various industries, because, while information about a few well organised industries is complete, in the case of many industries not well organised or not organised at all, information is extremely scattered and there is no single source of reliable information. The lack of specialised sources of information in respect of industries created such a great difficulty, even in India, in the way of the correct judging of their position, that at the request of the Provincial Governments, the Government of India created in 1935 the Industrial Research Bureau to act as a clearing house of information regarding industrial activities in the country. The collection and dissemination of industrial intelligence is one of the important functions of this Bureau. In this paper I shall describe the various sources of information regarding industries which exist at present, the nature of the information available and the gaps in the field. I shall also tell you something about the action so far taken by the Industrial Research Bureau in the organisation of industrial intelligence and what still remains to be done.

Industrial Intelligence relates to all information about the establishment, running or improvement of industries, including particularly information regarding the technical aspects of manufacture or production. I shall use the term " Industrial intelligence " in this sense throughout this paper.

I shall describe the official and non-official agencies in India which disseminate Industrial Intelligence, the means they adopt for the purpose, and the nature of the intelligence they supply.

The following sources of Industrial Intelligence are available :

A. Descriptive.

1. Monographs surveying the existing conditions and future prospects of individual industries.
2. Reports of commissions and committees on the general industrial conditions in India, or in particular provinces.
3. Reports of officers appointed specially by the Central or Provincial Governments to enquire into the conditions of particular industries.

4. Books written by non-officials surveying general economic and industrial conditions based on official statistics, with suggestions for improvements on existing conditions.
5. Articles in newspapers and periodicals on industries and industrial conditions.

B. Research and Technical Information

6. Monographs embodying results of experiments for improving the productive processes in individual industries or pointing out the possibility of starting new industries.
7. Papers published by official or non-official research laboratories on particular researches.
8. Articles published in the official organs of technical or learned societies bearing on industrial research or technical aspects of industries.

C. Statistical.

9. Statistics relating to industries published by the Department of Commercial Intelligence and Statistics.
   i. Production statistics.
   ii. Classified list of industrial establishments in India.
   iii. Classified list of joint stock companies in India engaged in industry and commerce.
   iv. Internal and external trade statistics.
   v. Monthly survey of business conditions in India.

D. Commercial Information which is also of Industrial Importance.

10. Reports of H.M. Senior Trade Commissioner in India on "Conditions and prospects of United Kingdom trade in India."
11. Reports of the Indian Trade Commissioners in London, Hamburg, and Milan.
12. Reports of Indian Chambers of Commerce.
13. Directories, year books, etc., containing information about industrial concerns and industries.

A

Government institutions which supply information relating to industries may be classified as follows :

I. Central Government.
   a. Imperial Department of Industries.
   b. Geological Survey of India.
   c. Department of Commercial Intelligence and Statistics Trade Commissioners.
   d. Forest Research Institute.
   e. Controller of Patents and Designs.
   f. Indian Stores Department.
   g. Imperial Council of Agricultural Research and Imperial Institute of Agricultural Research.
   h. Industrial Research Bureau.

i. Chief Inspector of Mines.
j. The Indian Tariff Board.

II. Provincial Governments.
a. Departments of Industries.
b. Inspector of Factories.
c. Public Works Department (Electricity Branch).
d. Inspectors of Boilers and Prime Movers.

III. States.
Departments of Industries.

Temporary.

Commissions and Committees and Special Officers appointed from time to time investigate particular aspects of industries.

B. Quasi-Government or Quasi-Public Bodies which disseminate industrial intelligence are

1. The Indian Central Cotton Committee, Bombay.
2. The Lac Research Committee, Namkum, Ranchi.
3. Indian Institute of Science.
4. The Indian Central Jute Committee.

C. Non-Official Organisations.

I. Learned Societies.

1. The Institution of Engineers (India), Calcutta.
2. The Institution of Chemists (India), Calcutta.
3. The Indian Chemical Society, Calcutta.
4. Indian Association for Cultivation of Science, Calcutta.
5. The Academy of Sciences, United Provinces, Allahabad.
6. The National Academy of Sciences, Calcutta.
7. Indian Academy of Sciences.
8. Indian Science Congress.
9. Mining and Geological Institute of India.
10. Association for the development of Swadeshi Industries.
11. The Asiatic Society of Bengal.

II. Commercial Organisations.

1. Chambers of Commerce.
2. Trade Associations.

Besides the institutions, official, quasi-public, and non-official, enumerated above, there are in existence a few periodicals, directories, and year books which also feature articles dealing with industries. Among the periodicals the official organs of the learned societies are to be reckoned with.

The others are :

1. *Indian Finance* (weekly).
2. *Commerce* (weekly).
3. *Capital* (weekly).
4. *Commercial Gazette* (weekly).
5. *Current Science* (monthly).
6. *Science and Culture* (monthly).

7. *Indian Concrete Journal* (monthly).
8. *Indian Textile Journal* (monthly).

The Imperial Department of Industries

The Central Department of Industries is mostly concerned with industrial policy. It issues a series of bulletins under the general title of *Bulletins of Indian Industries and Labour*. A list of the fifty-six bulletins issued in this series will be found in Appendix I to this paper. Broadly speaking the bulletins deal with the following subjects :

1. Industrial Intelligence—proceedings of conferences of directors of industries.
2. Mineral Industries, e.g. notes on manganese ores, etc.
3. Individual Industries, e.g. chemicals manufactured in India ; Paper and pulp production in the Madras Presidency ; Gilt wire and tinsel industry ; Notes on glass manufacture.
4. Factory legislation.
5. Labour and welfare work.

Besides the Bulletins of Indian Industries and Labour, the Central Department of Industries published between 1921 and 1923 a quarterly *Journal of Indian Industries and Labour*. The journal contained articles written by directors of industries and industrialists on current industrial problems and ceased publication in 1923 as a measure of retrenchment.

The *Monthly Circular,* a bulletin, was also issued by the Central Department of Industries, but this was solely for the information of the directors of industries and was not intended for the public. This was stopped at the same time as the journal. In 1928 the Department of Industries and Labour published a monograph on *State and Industry,* written by Mr. A. G. Clow. This book traces the development of industries in India, and the gradual evolution of an industrial policy, and describes at some detail the various steps taken by the Central and Provincial Governments to assist industrial development.

The Geological Survey of India established in 1851, supplies information with regard to the mineral resources of the country.

It issues various publications including :

1. *Records,* which are published at the rate of approximately one volume of four parts per annum. The records contain the annual Report of the Department, the annual Review of the Mineral Production, and papers dealing with both scientific and economic matters. Every fifth year one volume of the *Records* is devoted to a review of the mineral production of India during the preceding quinquennial period ;

2. *Memoirs,* which are issued from time to time as material is available ; they are chiefly descriptive and relate to the geology and mineral resources of areas which constitute more or less well defined stratigraphical units. They also contain papers in the nature of monographs which are not suitable for publication in the *Records* ;

3. *Paleontologia Indica,* published also as material accumulates, and consisting of descriptions of fossils collected during the course of the operations of the Department ; and

4. Miscellaneous publications, such as bibliographies, guides, etc., issued from time to time.

A list of the publications of the Geological Survey of India falling under items 1 and 2 above, of industrial interest issued from 1921 onwards will be found in *Bulletin No.* 1 of *Indian Industrial Research.*

The Library of the Geological Survey of India is probably one of the finest scientific libraries in the East; it contains more than 50,000 volumes, including a very complete set of scientific serials, most of the latter being obtained by exchange of publications with learned societies and other scientific institutions. Free access to the library is allowed during office hours and every facility is given to persons wishing to consult geographical literature.

The Department of Mines is mainly responsible for the adminstration of two Acts, viz., the Indian Mines Act (Act VIII of 1901) and the Land Acquisition Mines Act (Act XVIII of 1885).

It collects annual figures of output, labour, etc. from all the mines and issues an annual Report called the "Annual Report of the Chief Inspector of Mines in India."

The Patent Office. The Controller of Patents and Designs, whose office is in Calcutta, administers the Indian Patents and Designs Act, 1911, which is in force in British India only and not in Indian States. Particulars of patents applied for or patents granted are regularly published in the *Gazette of India,* Part II, and also in the *Indian Trade Journal.* An annual Report on the registration of patents and designs in India is issued by the Controller.

The Department of Commercial Intelligence and Statistics was formed in 1922 by the amalgamation of the Department of Commercial Intelligence and the Department of Statistics.

The principal publication of the Department of Commercial Intelligence, besides the statistical publications of which more will be said later on, is the *Indian Trade Journal*, published every Thursday.

There is a library attached to the Department of Commercial Intelligence at Calcutta which goes by the name of the "Commercial Library." It contains books on Commerce and industrial technology and is open to the public on office days during working hours. A simple subject alphabetical dictionary catalogue of the books in the library is published once in five years and supplements are issued to it from time to time between one and another edition of the main catalogue.

The various provincial departments of industries work in close collaboration with the Department of Commercial Intelligence. There is a broad division of work between them according to which the provincial departments of industries are responsible for trade information down to the port from which they are shipped, while the trade from the port (i.e. from the point where shippers receive the goods) is the concern of the Department of Commercial Intelligence. Industrial enquiries, which the Department of Commercial Intelligence may receive are transferred by that department for disposal to the directors of industries concerned, while commercial enquiries which the directors of industries may receive are transferred by them for disposal to the Department of Commercial Intelligence.

The annual reports of the Indian Trade Commissioners and also the Report of H.M. Senior Trade Commissioner in India on "The Conditions and Prospects of United Kingdom Trade in India" are valuable documents throwing light on the commercial and industrial conditions in India, year by year.

Now I shall come to the statistical publications issued by the Department of Commercial Intelligence and Statistics. In Appendix II, you will find a complete list of these. Broadly, these can be divided into the following four main classes :

I. Commercial and Financial Statistics :

(1) Consisting of monthly and annual statements of the internal and external trade of India ; and

(2) Monthly statistics relating to Indian Customs Revenue, joint stock companies registered in India (monthly and annual), statistical tables relating to banking in India, statistical tables relating to the co-operative movement in India, etc.

II. Statistics relating to Prices and Index Numbers, e.g. wholesale prices of certain staple articles of trade at selected stations in India (quarterly) and Index numbers of Indian prices (quinquennial).

III. Industrial and Production Statistics, e.g. monthly statistics of cotton spinning and weaving in Indian mills ; monthly statistics of production of certain selected industries of India ; Indian coal statistics ; Indian rubber statistics ; list of cotton pressing factories ; large industrial establishments in India ; directory of exporters of Indian produce and manufactures, etc.

IV. Agricultural Statistics, e.g. agricultural statistics of India, in two volumes, Vol. I dealing with British India and Vol. II with Indian States (annual), Indian tea statistics, Indian coffee statistics, live stock statistics (quinquennial), etc.

The *Statistical Abstract for British India* is a statistical compendium covering all the items mentioned above.

Besides the above, the Statistical Research Branch of the Department, stationed at headquarters of the Government of India, publishes from March, 1934, a monthly *Survey of Business Conditions in India.* The survey consists of two parts, the first giving the necessary general statistical data dealing with production, trade and financial conditions, and the second consisting of separate notes dealing with the multifarious economic activities of the country and describing the economic conditions of the month.

From the point of view of industry, statistics which are of importance are production statistics in the various industries and statistics relating to the various classes of industrial concerns and their standing, etc. The monthly statistics of production of certain selected industries of India gives figures of production only in respect of the following industries : jute manufacture, paper, iron and steel manufacture, sulphuric acid, sulphate of ammonia, petrol, kerosine oil, cement, sugar, matches, and wheat flour.

The question of widening the scope of this publication is constantly being examined, but the difficulties in the way of collecting reliable figures for the other industries, especially of those ill-organised and widely scattered small-scale industries are almost insuperable.

As regards statistics relating to the various classes of industrial concerns in India and their standing, the only publications which give information are (1) *Large Industrial Establishments in India* (biennial), and (2) *Joint Stock Companies in British India and certain Indian States* (annual) published by the Department of Commercial Intelligence and Statistics, list of firms registered under rule 4 of the *Store Purchase Rules* published annually by the Indian Stores Department and a few commercial directories published by private concerns. The form in which these are published differs widely and, further, they do not contain a complete list of all industrial concerns.

The Indian Tariff Board was constituted as a result of the recommendations of the Indian Fiscal Commission. Its functions are to examine the claims of individual industries for protection with reference to the three fundamental conditions laid down by the Indian Fiscal Commission and to make recommendations to the Government of India.

The Board has so far reported on forty-two industries, and in most of these cases the reports have been followed by substantial protection to the industries concerned.

The Reports of the Indian Tariff Board on the industries mentioned above have very great importance from the point of view of industrial intelligence since they are exhaustive and expert inquiries into the conditions of the industries concerned.

Next I shall touch upon three organisations, all of them presumably concerned with agriculture and allied subjects, but which also conduct researches and publish literature which are of industrial interest. These are the Forest Research Institute, stationed at Dehra Dun, the Imperial Council of Agricultural Research stationed at the headquarters of the Government of India, and the Imperial Institute of Agricultural Research, Pusa, now under transfer to Delhi.

The Forest Research Institute, Dehra Dun, publishes, besides an annual Report on the progress of forest research in India, bulletins and also the *Forest Records* from time to time as material accumulates. A list of papers published by the Institute from 1921, having an industrial interest will be found in *Bulletin No.* 1 of Indian Industrial Research.

The Imperial Council of Agricultural Research, though its activity lies mainly in the field of agriculture, is also concerned with certain industries like sugar, sericulture, oil seeds, etc. Such of the publications of this Council as have a bearing on industries will be found in Bulletin No. 1 of Indian Industrial Research. The council also publishes two journals, viz., *Agriculture and Live Stock in India*, and *Indian Journal of Agricultural Science*, both of them bi-monthly. Articles of industrial interest are also published in these.

The Imperial Institute of Agricultural Research, Pusa. Its activity is solely agricultural, and is only of indirect interest to industry in that the agricultural products dealt with form raw materials for industries, e.g. oil seeds, etc. This Institute issues bulletins, and also memoirs. A few of these of industrial interest published from 1921 will be found in *Bulletin No.* 1 of Indian Industrial Research.

The Indian Stores Department was created in 1922 as a result of the recommendations of the Stores Purchase Committee to serve

as an economical agent for the bulk purchase of articles required for use in the public service in India. Besides an annual Report the Department has issued the monographs mentioned in *Bulletin No.* 1 of Indian Industrial Research.

II. Provincial Governments. Departments of Industries.

All the British Indian Provinces have departments of industries with the exception of North-Western Frontier Province and the newly created provinces of Orissa and Sind.

I shall here describe only how these departments are organised for intelligence work. Madras, Bombay, Central Provinces, Punjab, Bihar and Orissa, and Bengal have branches of their offices for dealing with intelligence work. The Madras Department of Industries has a good library attached to its intelligence branch, while the departments of Industries, Punjab, and Bihar and Orissa are building up industrial libraries as parts of their intelligence organisation. In all the provinces the intelligence work mainly consists in replying to enquiries from industrialists and traders, and the number of such enquiries received and dealt with each year varies from province to province. It will take too much time to recount to you the nature of such enquiries. Particulars of these, can however, be seen from the annual reports of the various departments of industries. As regards the systematic collection and filing of information, the Department of Industries, Madras, alone seems to have a regular organisation. Besides the methods of direct correspondence and replying to individual enquiries, all the departments of industries issue bulletins on industrial subjects from time to time. A list of these published on industrial subjects from 1921, is given in *Bulletin No.* 1 of Indian Industrial Research. These bulletins deal with a variety of subjects. Some embody the results of experiments, while others are surveys of existing industries or notes on the possibilities of starting new industries. Only in Madras and the United Provinces have committees, comprising officials and non-officials been appointed from time to time to enquire into either the general industrial conditions obtaining in the province or particular industries. The United Provinces Industrial Survey of 1922–4, Industries Reorganisation Committee Report, and Industrial Finance Committee Report are examples of the former, while the Leather Industry Committee Report, Madras, is an example of the latter kind. None of these provincial departments issue periodical publications.

Besides the publications of the Department of Industries referred to above, useful items of industrial intelligence can also be gleaned from the annual reports of some of the other provincial officers, like the inspectors of factories, boilers, and prime movers, and chief engineers in charge of electricity branches in the Public Works Departments. These will generally supply information about the increase or decrease in power driven factories, and the power resources utilised by industry.

III. State Governments.

The States of Hyderabad, Mysore, Kashmir, Baroda, Indore, Gwalior, and Travancore are now collaborating with the Industrial Research Bureau for their industrial advancement. The publications issued by the departments of industries or corresponding departments

in these States from 1921 will be found listed in *Bulletin No.* 1 of Indian Industrial Research.

I shall now recount some of the publications of a few Government Departments and Commissions and Committees which are not in existence now. Of these, first in importance is the Indian Munitions Board. The important work done by this Board for the development of Indian industries and an account of its achievements can be gathered from the Industrial Handbook published by the Board in 1919. The Board collected complete intelligence regarding Indian manufacturers and industries.

Of the Reports of the Commissions and Committees, the Report of the Indian Industrial Commission, 1916–8, presided over by Sir Thomas Holland, is an important one from the point of view of Industrial Intelligence.

The other Reports of Committees important from the point of view of Industrial Intelligence are :

i. The Report of the External Capital Committee, 1925.
ii. The Report of the Economic Enquiry Committee, 1925.
iii. The Report of the Royal Commission on Agriculture, 1926.
iv. The Report of the Roads Committee.
v. The Report of the Indian Cinematograph Committee.
vi. The Report of the Hides Cess Enquiry Committee.
vii. The Report of the Royal Commission on Labour.
viii. The Report of the Banking Enquiry Committee.
ix. The Report of the Indian Fiscal Commission.

B. Quasi-Public Organisations

These are :

1. The Indian Central Cotton Committee, set up in 1923 by the Indian Cotton Cess Act, 1923, which maintains a technological laboratory at Matunga, Bombay. A brochure on *Cotton Research in India* during the period 1924–35 has recently been issued by the director of this laboratory.

2. The Indian Lac Association for Research was created by the Indian Lac Cess Act, 1921, to safeguard the interest of the lac industry. The Association maintains a Lac Research Institute at Namkum, Ranchi, and also maintains a Shellac Research Bureau in London. The organisation of the Lac Research Institute, the work it is doing, and the publications it has issued on lac and shellac will be found described in a book issued last year by the Institute entitled *Lac and the Indian Lac Research Institute.*

3. The Indian Institute of Science, Bangalore, is another quasi-public organisation, which affords scope for post-graduate research work on pure and applied science. The results of the work done in the Institute are published in the *Journal of the Indian Institute of Science.* A list of the important papers bearing on industries published in the Journal from 1921 will be found in *Bulletin No.* 1 of Indian Industrial Research.

C. Non-Official Organisations.

I. Learned Societies, etc.

These are various associations for the study and development of particular sciences, and regularly publish their proceedings or journals

containing papers read at their meetings. The articles embody the results of the researches conducted by their members and some of them also survey the conditions in individual industries. Such Associations are :

1. Institution of Engineers (India), Calcutta.
2. Institution of Chemists (India), Calcutta.
3. Indian Chemical Society, Calcutta.
4. Indian Association for the cultivation of Science.
5. Asiatic Society of Bengal.
6. The Academy of Sciences, U.P. Allahabad.
7. The National Academy of Science, Calcutta.
8. Mining and Geological Institute of India, Calcutta.
9. The Indian Science Congress.
10. The Association for the development of Swadeshi Industries, Delhi.

II. Commercial Organisations.

Under this heading come the Chambers of Commerce, European and Indian, and various trades associations, all of which issue annual reports.

Coming to the non-official periodical literature, which also serves as a medium for the dissemination of industrial intelligence, one finds that there are very few journals devoted solely to industries in general or to particular industries. Such of the periodicals as are in existence can be classified under three main headings :

1. *Periodicals whose interest is mainly financial* but which also publish articles on industrial subjects, from time to time, e.g. (1) *Indian Finance*, (2) *Commerce*, (3) *Capital*, (4) *Commercial Gazette*.
2. *Periodicals devoted to pure and applied science.* Under this head will fall all the proceedings, transactions, and journals of the learned societies described above. The journals, viz. *Current Science* and *Science and Culture*, belong to this class.
3. *Periodicals devoted to particular industries.* Examples of the journals of this class are (1) *Indian and Eastern Engineer,* which deals with the engineering aspects of industry; (2) *Indian Concrete Journal*, run by the Concrete Association of India and exclusively devoted to cement and concrete industry and construction; and (3) *Indian Textile Journal*, devoted to the Indian cotton mill industry.

Much fugitive literature about industries also appears in the daily Press.

The Directory of the Bombay Presidency, published annually by the Times of India Press, Bombay, and *Thacker's Indian Directory*, published by the Thacker's Press and Directors, Limited, Calcutta, are two prominent commercial directories in India. *The Industries Year Book and Directory*, published in Calcutta, attempts to supply the need for a real industrial directory for India.

I shall now sum up the position generally regarding dissemination of industrial intelligence in India and indicate the lines in which the Industrial Research Bureau attempts or will have to attempt to fill up the gaps.

You will have realised by now how varied and scattered are the sources of Industrial Intelligence in India, and how unorganised they are. It is, in fact, difficult to know where to look for information.

In order to obviate this position and to serve as a central source of industrial intelligence, the Government of India created the Industrial Research Bureau in April, 1935. The collection and dissemination of Industrial Intelligence is one of the important functions of this Bureau.

The issue of a series of bulletins under the general heading of Bulletins of Indian Industrial Research is one of the important methods by which the Bureau hopes to disseminate industrial intelligence. Surveys of existing conditions and future prospects of individual industries, as well as the results of researches conducted by the Bureau, will be published in these bulletins. So far two bulletins have been issued in this series, viz., (1) *Bibliography of Industrial Publications Published in India from* 1921, and (2) *A Survey of the Indian Glass Industry*, while a third bulletin, *The Effect of Annealing Procedure on the tensile properties of Arsenical Copper Bar*, is now in the press and will be published shortly. Various experts have been requested to write monographs on the Indian leather and tanning industry, soap industry, heavy chemical industry, and vegetable oil industry. These monographs, when ready, will be published as bulletins of Indian Industrial Research. In course of time it is hoped to cover the entire field of Indian industry by means of such monographs.

From the point of view of industrial intelligence, the bibliography referred to above is of particular importance because it is a catalogue of all publications on industrial matters published in India. Through it people can know the amount of work so far done, and research workers can avoid duplication by leaving out work already done. It is classified on the Universal Decimal System of the Institut Internationale de Bibliographie, as this is the vehicle through which international bibliography is now increasingly published. It is proposed to issue annotated annual bibliographies of all industrial publications published in India from 1936 to supplement the original bibliography. This, it is hoped, will serve to disseminate industrial intelligence systematically.

The Bureau has begun organising a technological library. Already in the first year of its existence accessions have totalled 3,000 and forty periodicals are regularly received. The contents of the library are classified on the Universal Decimal System of Classification and card indexes for shelf, classification, and author are maintained. It is proposed to throw open this library to the public in course of time.

The improvement of industrial statistics and the issue of a periodical to serve as a means of exchange of information are problems which await solution.

Before I conclude this paper, I have to thank the Director, Industrial Research Bureau, for permitting me to present this paper.

Appendix I.

Bulletins of Indian Industries and Labour.

Bulletin No.	*Title.*	*Author.*
1	Proceedings of the First Conference of Directors of Industries.	——

Bulletin No.	*Title.*	*Author.*
2	Notes on Manganese Ores.	J. Coggin Brown
3	Notes on Magnesite and Monazite	J. Coggin Brown
4	The International Labour Organisation and the Washington Conference.	Edited by A. G. Clow.
5	Proceedings of the Second Conference of Directors of Industries.	——
6	Notes on Antimony, Arsenic, and Bismuth	J. Coggin Brown
7	Notes on Wolfram	J. Coggin Brown
8	Indian Factory Law Administration	A. G. Clow
9	Notes on Chromite and Molybdenum.	J. Coggin Brown
10	The Washington Labour Conference (Official Correspondence)	——
11	Notes on Tin	J. Coggin Brown
12	Notes on Bauxite, Borax, Corundum, and Garnet	J. Coggin Brown
13	Chemical Researches in Progress	——
14	Factory Construction and Installation in Bengal	A. T. Weston
15	Notes on Mica	J. Coggin Brown
16	Notes on Indian Piece-Goods Trade	A. C. Coubrough
17	The Genoa Labour Conference (Official Correspondence)	——
18	Proceedings of the Third Conference of the Department of Industries.	——
19	Notes on Zinc and Lead	J. Coggin Brown
20	Notes on Asbestos	J. Coggin Brown
21	Chemicals Manufactured in India	——
22	Notes on Barytes and Mineral Colours	J. Coggin Brown
23	Conciliation and Arbitration	R. N. Gilchrist
24	Paper and Paper Pulp Production in the Madras Presidency	F. Marsden
25	Gilt Wire and Tinsel Industry	V. N. Mehta
26	The Third International Labour Conference	A. G. Clow
27	Proceedings of the Fourth Conference of the Department of Industries	——
28	Notes on Sulphuric Acid, Sulphur, and Iron Pyrites	Cyril S. Fox
29	Notes on Glass Manufacture	C. S. Fox
30	The Possibilities of manufacturing Portland Cement in the United Provinces	E. R. Watson, C. K. Mukerjee, and N. G. Chaterjee
31	Women's Labour in Bengal Industries	Dagmar F. Curjel
32	Indian Maternity Benefit Scheme	——
33	The Seventh International Labour Conference	——
34	Period of Wage Payment	——
35	The employment of Women in Mines.	——
36	Indian Coal Problems	J. Coggin Brown
37	Indian Factory Legislation: a Historical Survey	A. G. Clow
38	The Eighth and Ninth International Labour Conferences	——
39	The Tenth International Labour Conference	——
40	Notes on the Marketing and Utilisation of Mica	G. Vernon Hobson
41	The Eleventh International Labour Conference	——
42	India's Resources in Mineral Fertilisers	Sir Edwin Pascoe
43	Industrial Disputes in India	——
44	The Twelfth International Labour Conference	——
45	The Thirteenth International Labour Conference	——
46	The Fourteenth International Labour Conference	——
47	The Fifteenth International Labour Conference	——
48	The Sixteenth International Labour Conference	——
49	Reductions of Hours of Work in Mines, November, 1932	——
50	Proceedings of the Fifth Industries Conference	——
51	The Seventeenth International Labour Conference	——
52	Proceedings of Sixth Industries Conference	——
53	The Eighteenth International Labour Conference, June, 1934	——

Bulletin No.	*Title.*	*Author.*
54	India's Coal Resources	Sir Lewis Leigh Fermor
55	The Nineteenth International Labour Conference June, 1935	——
56	Proceedings of the Seventh Industries Conference	——

Appendix II.

List of the Publications of the Department of Commercial Intelligence and Statistics, India

Weekly.

1. Indian Trade Journal (established 1906)—issued on Thursdays.

Monthly.

2. Accounts relating to Sea-borne Trade and Navigation of British India.
3. Monthly Statistics of Cotton Spinning and Weaving in Indian Mills.
4. Monthly Statistics of the Production of certain Selected Industries of India.
5. Indian Customs Revenue.
6. Joint Stock Companies registered in British India and in the Indian States of Hyderabad, Mysore, Baroda, and Travancore.
7. Trade at Stations adjacent to Land Frontier Routes.
8. Raw Cotton Trade Statistics (Rail and River).
9. Exports of Indian Artware and Sports Goods.
10. Trade Statistics relating to Maritime States in Kathiawar and the State of Travancore.
11. Accounts relating to the Coasting Trade and Navigation of British India.
12. Accounts relating to the Inland (Rail and River-borne) Trade of India.

Quarterly.

13. Wholesale prices of certain staple articles of trade at selected stations in India.

Annual.

14. Review of the Trade in India.
15. Review of certain Main Items of Foreign Trade.
16. Accounts relating to the Sea-borne Trade and Navigation of British India.
17. Annual Statement of Sea-borne Trade of British India with the British Empire and Foreign Countries, vols. I and II.
18. Statistical Abstracts for British India (with statistics where available, relating to certain Indian States).
19. Agricultural Statistics of India :
    Vol. I, British India.
    Vol. II, Indian States.
20. Agricultural Statistics of British India (Provisional).
21. Estimates of Area and Yield of Principal Crops in India.
22. Indian Tea Statistics.
23. Indian Coal Statistics.
24. Indian Rubber Statistics.
25. Indian Coffee Statistics.
26. List of Cotton pressing Factories with names of owners and particulars of marks alloted to them in the different provinces of British India and certain Indian States.
27. Joint Stock Companies in British India and in the Indian States of Hyderabad, Mysore, Baroda, Gwalior, Indore, and Travancore.
28. Statistical Tables relating to Banks in India.
29. Statistical Statements relating to the Co-operative Movement in India.

Biennial.

30. Large Industrial Establishments in India.

Quinquennial.

31. Quinquennial Report on the average yield per acre of principal Crops in India.
32. Livestock Statistics, India.
33. Index Number of Indian Prices.
34. Accounts of the Trade of the Portuguese Possessions in India.

Miscellaneous.

35. Crop Forecast (published in *Indian Trade Journal*).
36. Registration and Publication of Statistics relating to the Sea-borne Trade and Navigation of British India.
37. A Manual of preparation of Crop Forecasts in India.
38. Cotton Map of India, No. 1 showing the different varieties of cotton grown in the different districts and States in India.
39. Crop Atlas of India.
40. Alphabetical Index of the Commodities that enter into the Foreign Sea-borne Trade of British India.
41. Quinquennial Catalogue of the Commercial Library.
42. Directory of Exporters of Indian produce and manufacturers.

** Special Supplements to the "Indian Trade Journal."*

43. Review of the Sugar Industry of India.
44. Notes on Tobacco.
45. Glossary of Raw Cotton Trade Terms.
46. Glossary of Terms relating to Handmade Cotton Fabrics.
47. Glossary of Terms relating to Hides, Skins, and Leather.
48. Glossary of Terms relating to Cotton Manufactures (mill-made).
49 Indian Customs Tariff.

Publications issued by the Statistical Research Branch of the Department of Commercial Intelligence and Statistics, India.

50. Monthly Survey of Business Conditions in India.

* Supplied free along with the copies of the *Indian Trade Journal.*

Final Session.

At the final session of the Conference the Chair was taken by Mr. Arthur F. Ridley.

The following resolution, which on the motion of Mr. Theodore Besterman, seconded by Mr. A. F. Ridley, had been passed by an earlier meeting, was adopted unanimously:

> That this Annual Conference of ASLIB notes with satisfaction the progress of the several Union Catalogues and urges that every effort should be made by the National Central Library to promote the active compilation and early completion of the Union Catalogue of Outlier Libraries.

The delegates passed votes of thanks to the Master and Fellows of Balliol College for their hospitality in allowing the Conference to be held at the College, and to Sir Richard Gregory (Past-President) and Dr. Cyril Norwood (President) for their kindness in attending. Votes of thanks were also passed to the authors of papers, the Chairmen and Stewards of Meetings, the Home Bursar and Staff of Balliol College, to Mrs. C. S. Orwin for help in the local organisation of the Conference, and to the staff of ASLIB.

The proceedings of the Conference then ended.

Report of the Eleventh Annual General Meeting.

The Eleventh Annual General Meeting of members and associate members was held at 5.30 p.m. on Saturday, September 19th, 1936, at Balliol College, Oxford.

Present: About fifty members and associate members were present.

Chairman: Mr. Arthur F. Ridley (Chairman of the Council of the Association) acted as Chairman of the meeting.

At the opening of the meeting, the Chairman informed members, with great regret, of the death on August 31st, 1936, of Mr. S. S. Bullock, General Secretary of the Association from 1928 to 1933. A letter of condolence in the name of the Association had been sent to Mrs. Bullock.

Item I. **Minutes of the Last Annual General Meeting.**

The Minutes of the Tenth Meeting, having been printed and circulated with the last Conference Report, were taken as read. It was agreed that they should be confirmed and signed as correct by the Chairman.

Item II. **Audited Statement of Accounts for 1935-1936.**

The Audited Statement of Accounts, which had already been circulated, was presented by the Hon. Treasurer, Mr. A. F. Ridley, whose motion for adoption of the Accounts, seconded by Mr. H. L. Jackson, was carried unanimously.

Item III. **Appointment of Auditors.**

Mr. B. Fullman asked whether it would not be possible to obtain the services of an Honorary Auditor in order to save the annual five-guinea fee? Mr. B. M. Headicar asked whether there were anything in the Constitution of the Association that would prevent such a step being taken. Mr. Fullman then proposed and Mr. H. L. Jackson seconded that Messrs. West and Drake be reappointed auditors to the Association pending the discovery of a suitable Honorary Auditor, and that the Council should be asked to explore the possibilities of this suggestion. The proposal was carried unanimously.

Item IV. **Election of Council.**

The Chairman announced that the list of Council and Officers had been circulated. There had been no resignations and the following had accepted nomination: Mr. G. Ellis Flack and Mr. E. R. McColvin.

On the proposal of Mr. Berwick Sayers, seconded by Mr. B. Fullman, the following elections or re-elections as members of the Council were unanimously approved. Mr. R. Brightman, Mr. G. Ellis Flack, Mr. H. Vincent Garrett, Miss Mizpah Gilbert, Mr. A. A. Gomme, Mr. C. H. Gray, Professor R. S. Hutton, Mr. H. H. Johnson, Mr. E. R. McColvin, Mr. J. G. Pearce, and Mr. A. F. Ridley.

The full list of members of the Council will be found on page 4.

ITEM V. **Election of President and other Honorary Officers.**

On the proposal of MISS D. KNIGHT, seconded by MR. B. FULLMAN, it was unanimously agreed that Dr. Cyril Norwood should be elected President of the Association, and that Mr. A. F. Ridley (Honorary Treasurer) and Mr. F. A. Hoare (Honorary Secretary) should be re-elected. MR. H. H. JOHNSON took the opportunity of saying a few words of appreciation of the whole-hearted service that Professor R. S. Hutton had given to the Association during the five years when he held office as Chairman of the Council. He still maintained a close connection with ASLIB, and Mr. Johnson spoke on behalf of the whole Council in giving this expression of thanks to him. In reply, PROFESSOR HUTTON said that he was greatly touched by Mr. Johnson's remarks, but reminded the members that since Mr. Ridley had been the organiser of the First ASLIB Conference it was appropriate that he should now succeed him as Chairman.

ITEM VI. **Reports from Kindred Organisations.**

A number of reports from organisations of interest to members of ASLIB had been received and are printed in full on pages 128-133. These were briefly summarised and received.

ITEM VII. **Report of the Year's Work of ASLIB.**

MR. A. F. RIDLEY then presented the Report of the Year's Work of the Association (see p. 124) and proposed its acceptance. In seconding this proposal, MR. W. C. BERWICK SAYERS said that he thought that, apart from other activities, ASLIB had justified its existence by the organisation of the *ASLIB Book List,* which should be far better known outside the membership of the Association. Publicity is expensive, but it must be sought. Further, a real attempt must be made to bring out a revised edition of the *ASLIB Directory.* He closed with an expression of thanks to the ASLIB Council and Staff. The proposal was adopted unanimously.

ITEM VIII. **Exchange of Greetings.**

A telegram of greeting was received and read from the University and Research Section of the Library Association, then holding its annual meeting at Cambridge. It was unanimously agreed to convey a cordial greeting in return.

ASSOCIATION OF SPECIAL LIBRARIES AND INFORMATION BUREAUX.

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 30TH JUNE, 1936.

Dr. EXPENDITURE. Cr. INCOME.

EXPENDITURE	£ s. d.	£ s. d.
To General Expenditure—		
Salaries	407 13 0	
Rent, Light and Telephone	80 16 9	
Insurance	2 6 6	
Printing, Stationery, Postage and Office Expenses	153 10 8	
Reference Books	3 5 11	
Travelling Expenses	12 10	
Press Cuttings	2 2 0	
Audit Fee	5 5 0	
Depreciation of Furniture and Fittings	6 7 6	
		662 0 2
,, Cost of Conference Reprints and Papers		15 17 0
,, Book List Expenses		70 8 6
,, Cost of 1935 Conference—		
Conference Expenses	191 7 6	
Printing of Conference Report	122 10 0	
		313 17 6
		1062 3 2
Balance, being excess of Income over Expenditure for the year, carried to Balance Sheet		1 12 5
		£1063 15 7

INCOME	£ s. d.	£ s. d.
By General Receipts—		
Membership Subscriptions		570 3 0
,, Sales of Directory		15 3 3
,, Sales of Reprints and Papers		1 8 9
,, Sales of Book List		77 10 2
,, Conference Receipts—		
Fees and other Receipts	317 9 0	
Sales of Report	55 19 5	
Advertisements in Report	20 19 6	
		394 7 11
,, Receipts re Translator's Panel		5 2 6
		£1063 15 7

BALANCE SHEET – 30TH JUNE, 1936.

Dr. | Cr.

LIABILITIES.	£ s. d.	£ s. d.	ASSETS.	£ s. d.	£ s. d.
To Sundry Creditors		24 5 0	By Cash at Bank on Current Account	33 2 3	
,, Subscriptions in Advance		30 9 0	,, Cash in Hand	6 17 3	
,, Working Capital—					39 19 6
As at 30th June, 1935	85 3 6		,, Sundry Debtors		25 7 8
Add—Excess of Income over Expenditure for the year	1 12 5		,, Rent Paid in Advance		18 15 0
		86 15 11	,, Furniture and Fittings—		
			As at 30th June, 1935	38 1 0	
			Additions during year	25 14 3	
				63 15 3	
			Less Depreciation at 10 per cent. p.a.	6 7 6	
					57 7 9
		£141 9 11			£141 9 11

(Signed) Arthur F. Ridley, *Hon. Treasurer.*

We have audited the above Balance Sheet and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the Association's affairs, according to the best of our information and the explanations given to us and as shown by the books of the Association.

14*th July*, 1936.
8, New Court, Lincoln's Inn, W.C.2.
And at Reading.

(Signed) West and Drake, *Chartered Accountants.*

Reports

Following the Annual General Meeting reports were received from the following organisations whose work is connected with and of special interest to members of ASLIB.

THE NATIONAL CENTRAL LIBRARY.

Report from Colonel L. Newcombe. The development of library co-operation during the past year has been most satisfactory. The Regional Systems now include 415 libraries, of which 37 are special and 13 university libraries. It is expected that before the end of this month a System will be established to cover the eight south-western counties of England. The whole of England and Wales will then be covered by a series of eight Regional Systems, in addition to the London Borough Libraries inter-lending system.

The number of Outlier Libraries, that is, libraries willing to lend their books to other libraries through the National Central Library, is now 162, of which 97 are special libraries. The total stock of these Outlier Libraries is nearly six-and-a-half million volumes, including some 32,000 sets of periodicals. 10,002 books were lent by the Outlier Libraries during the year 1935–6. All these were scarce books needed for some important purpose. Many of the Outlier Libraries, especially those in the urban and county group, are now in Regional Systems, and although most of them are lending more books than they did a year or two ago, a great many of these books are lent to libraries in their own Regional System. These regional issues naturally do not count in the Outlier Libraries total. Apart from these regional loans there is, with a few exceptions, an all-round decrease in the issues from individual Outlier Libraries. This decrease is largely the result of the introduction of the Regional Library Systems, as many requests for books which, a few years ago, would have been obtained from the Outlier Libraries are now met by the regional libraries. For several years the Outlier Libraries have generously shouldered the main burden of the supply of scarce and specialised books, and although the service of the National Central Library will always depend upon the great special libraries for many such books, it is satisfactory to note the lessening of the burden. There is reason to suppose that the demand made upon the Outlier Libraries will continue to decrease with the strengthening of the Regional Systems and with the increase in the number of special Outlier Libraries. During the last few years the number of books which seventeen of the most frequently used special Outlier Libraries have been asked to lend has decreased from 5,428 to 3,553.

The issues from the National Central Library to urban and county libraries show a decrease. This is directly attributable to the fact that the great majority of these libraries now tap their local supply, through their Regional Bureau, before applying to the National Central Library, so that the decrease is balanced, and more than balanced, by an increase in the issues through the Regional Bureaux. This is the co-operation the national system was designed to provide, and it is highly satisfactory to know that the Regional Systems are able to supply so large a proportion of the books needed, leaving the National Central Library to perform its proper function of supplying the scarce books otherwise unobtainable. As in previous years the books supplied have consisted in the main of (*a*) highly specialised and expensive books which the borrowing library would not be justified in buying, even if it could afford to do so ; (*b*) out-of-print books, including some of considerable age, rarity and value ; (*c*) foreign books, some of which were obtained from abroad as no copies could be found in this country ; and (*d*) back numbers of periodicals.

The number of books lent to the university libraries through the agency of the National Central Library shows a slight increase, 2,506 books having been lent as compared with 2,409 in the previous year. The university libraries take an increasingly important share in the national lending service, having lent 2,933 books to other libraries through the National Central Library and the Regional Bureaux.

The international work of the Library is one of great importance. Last year 302 books were lent to libraries in fifteen foreign countries and 104 books were borrowed from ten countries. The figures are, rightly, small. The reason for this is that the international service is put into operation only after it has been ascertained that no copy of the book is available for loan in the country from which the enquiry

originates. In order that the comparatively costly international machinery may not be abused, no application is, normally, dealt with unless it comes through the applicant's national centre. This procedure acts as a guarantee that a book is not being sent to a library in a country already possessing a loanable copy or copies. The National Central Library never applies for a book from abroad without obtaining the permission of the borrowing librarian; first, because the reader or his library may not be prepared to pay the additional cost of postage and possibly insurance, and secondly, because he may not be able to wait for the book to come. This, combined with the fact that the national service in Great Britain is becoming more efficient each year, means that the number of books needed by British libraries from libraries abroad is never likely to be large.

Details of the progress made in the union catalogues are given in the paper on union catalogues on pages 65 to 76 of this Report.

It has been suggested that some members of ASLIB do not yet realise the advantages of making use of the service offered by the National Central Library and the great system of Regional and Outlier Libraries, nor do they appreciate the simplicity with which this national system may be used. Its potential value to those engaged in commerce and manufacture is, perhaps, least appreciated. May I suggest that, if you are not already in the habit of doing so, it will be well worth your while to ask the librarian of your local library to obtain, through the Regional Bureau or the National Central Library, those books and periodicals to which you may not otherwise have access ?

THE BRITISH SOCIETY FOR INTERNATIONAL BIBLIOGRAPHY.

Report from Dr. S. C. Bradford. At the Annual General Meeting, Professor Pollard was re-elected President, Dr. Bradford Vice-President, Mr. Lancaster-Jones Hon. Secretary and Mr. Pledge Hon Treasurer, and the following ordinary members of Council were appointed : Mr. S. J. Astbury, Dr. P. S. Hudson, Mr. Wm. Macnab, and Dr. J. G. Priestley.

During the year activities again have been directed largely towards extending the adoption of the Universal Decimal Classification, revising the Classification and the publication of the English Edition. The first fascicule of the edition has been published and the second is in the press. Messrs. Simpkin Marshall are the English agents for the work.

The following additional instances of the use of the U.D.C. have been recorded during the year :

Archiv für Elektrotechnik, V.D.E. Berlin, classifies articles.
Bibliothèque de la Commission centrale de Statistique, Brussels, Liste des accroissements.
Elektro-technische Zeitschrift. Articles and abstracts.
Slaboproridy Obzor—Elektrotechnicky Svaz Ceskoslovensky. Articles.
Revista industrial y agricola de Tucuman. Articles.

Arrangements have now been made to circulate gratis to all members the P.E. Notes issued at frequent intervals by the Institut International de Documentation. These Notes contain projects for extension and revision of the Classification compiled by experts and submitted to the Classification Commission of the Institute for ratification.

The subscription for new Corporate members of the Society, elected subsequent to 1935, has been increased to two guineas. Such members will receive gratis copies of the quarterly publication *I.I.D. Communicationes,* which, in addition to numerous articles of interest in the fields of librarianship and documentation, contains all approved extensions and amendments of the Classification as ratified.

THE INTERNATIONAL COMMITTEE OF UNIVERSAL CLASSIFICATION

Report by F. Donker Duyvis. According to the decision of the Copenhagen Conference of 1935, the title of the Committee has been modified. The words " Decimal Classification " have been replaced by " Universal Classification," thus expressing that the object of the Committee is not limited to the elaboration of the decimal classification but concerns the study of any classification work of universal importance.

Charles Richet. One of the old guard of the decimal classification has passed. He was a great physiologist (Nobel laureate) and a noble-hearted man. To Richet,

who closely co-operated with Sébert, we owe the elaboration of the tables of Physiology, on which the bibliographic service of the Concilium Bibliographicum is based.

General Activity of the Committee. In the year 1935 41 notes with Proposals of Extension (Notes P.E. No. 97–137) were issued, concerning about 4,000 subdivisions of the Universal Decimal Classification. The proposed extensions of section 549, Mineralogy, have not been issued in a P.E. Note but have been published by Dr. Rösch in *Fortschritte der Mineralogie, Kristallographie und Petrographie*, vol. 19, pp. 75–102, 1935. This publication concerns about 1,000 extensions.

In 1935, 65 supplementary leaves of the *Supplementa et Correctiones Classificatio Decimalis* were issued and distributed together with the *I.I.D. Communicationes*.

Third Full Edition. The year 1935 saw the publication of the second fascicule of the German full edition. This comprises the classes 3 (Social Sciences) and 4, (Philology). The total increase of those two chapters is about 8 per cent. The preparation of the third fascicule of the German edition is proceeding rapidly. This fascicule will comprise the full class 5, Pure Sciences (Mathematics and Natural Sciences).

Fourth Full Edition. The fourth edition is in English and will appear in six volumes. Volume I, Fascicule 2 (Class 0, General Works with general introduction) has appeared already. The first fascicule of Volume I, auxiliary classes, will appear shortly. It is intended to take in hand the publication of Volume II, dealing with the " pure science " sections, as soon as possible.

Special Classes of the Full Editions.

5. *Pure Science*. The further translation of class 5 (Pure Science) was continued under the direction of Mr. Walter and Dr. Frank.

51. *Mathematics*. Professor Dr. Blumenthal kindly corrected the translation and added a few items.

52. *Astronomy. Geodetics*. Much work was done by Professor Dr. Birck in order to complete the classification of individual stars, the system of abbreviations and numbering of stars being in accordance with that usually employed in astronomy. We are also indebted to Dr. Birck for several extensions and corrections of the existing classification scheme.

53. *Theoretical Mechanics. Physics*. The classification of Physics has now been brought up to date, thanks to Dr. Ebert of the Physikalisch Technische Reichsanstalt. Dr. Rösch (Wetzler) has introduced several extensions in the optical section.

54. *Chemistry*. Dr. Maximilian Pflücke, chief editor of the *Chemisches Zentral-Blatt*, has kindly promised to correct the German translation of the chemical classes.

548/549. *Crystallography and Mineralogy*. The enormous work of extension of the crystallographic and mineralogic classification has been carried out by Dr. Rösch.

56 and 57. *Paleontology and Zoology*. Dr. Fill has now achieved the difficult task of completing the zoological and paleontological classification.

57. *Biology and Prehistory*. We are greatly indebted to Dr. Ahlenstiehl, of the Staatsbibliothek (Berlin), for his valuable advice as to the arrangement of the main classes of general Biology. The logical order of these main classes is now far more satisfactory.

58. *Botany*. With the aid of the manuscript of the next Engler-Gilg edition the classes for Botanical Taxonomy have been revised by Dr. Mildbread. Professor Mildbread has introduced decimal numbers for sub-families.

6. *Applied Sciences*. Special proposals for extensions and modifications are reaching us from various sides. The Science Library, the Royal Dutch Oil Co., the S.U.V.A., Lucerne, the Eidgenossische Technische Hochschule, Zürich, and the State Mines of Limburg figure among the bodies producing important contributions. The classification of industrial Organic Chemistry has been greatly improved.

Rumanian Abridged Edition. This edition will include some 4,000 subdivisions and an alphabetical index of about 6,000 words.

French Abridged Edition. Similarly, the manuscript of this edition is almost ready, thanks to the activity of Mr. Charles Sustrac.

Science Library Edition. The exact title of this publication is *Classification for Works on Pure and Applied Science in the Science Museum Library*. About 6,000 subdivisions are included. Stress is laid upon classes 5 and 6 (Pure and Applied Science).

Aluminium Edition. The *Aluminium Zentrale* in Berlin has worked out a special edition for the classification of the aluminium industry and allied subjects. The classification has been worked out carefully by Dr. Ernst Kocherhaus, of the Aluminium Industry in Neuhausen. The manuscript of this edition is ready and the publication will be effected by the Beuth Verlag on behalf of the *Deutscher Normenausschuss*.

Other Editions. Our Danish and also our Polish friends intend to publish an abridged edition. A short outline of the technical classification in English, French, and German will be issued by the International Standards Association. The Dutch Royal Air Lines intend to publish a short abstract of the aeronautical classification.

Special Secretariats. We are sorry to have to report that Professor Salmang has retired from his position as Special Secretary for the Ceramic section. We are greatly indebted to him for the well-planned German special edition of the Ceramic classification, a publication which has proved its practical value in the classification of the abstracts published in the *Glas-technische Berichte*. We express our gratitude to Professor Salmang for his thoroughly scientific work.

Dr. Fill has kindly accepted the position of Special Secretary for Ceramic Technology.

UNION FRANÇAISE DES ORGANISMES DE DOCUMENTATION

Report for the year 1935–6 from M. Jean Gerard. When U.F.O.D. was established on May 28th, 1932, it consisted of thirty-two organisations. To-day it comprises forty-five. These figures are an eloquent proof of its vitality. In spite of the difficulties which this age presents, the theories on which the Union is based continue to mature. When the existing documentation centres in France realise our work, they cannot fail to appreciate the advantages to be gained from a united action, the aim of which is the defence of their interests, both moral and material.

During the past year U.F.O.D. has expended its energies on a number of interesting matters, the first and most important being the survey of the country's documentary resources and the best method by which access to them may be obtained.

Documentation in France, an index of documentation centres in France, was published last autumn. This volume lists seventy organisations qualified to provide general or specialised information. It is hoped that this list will help to speed up the interchange of information, especially in its international aspect.

A great deal of time has been devoted to the administrative and technical organisation of documentation centres. Visits to public and private organisations provided opportunity for a very instructive study of comparative methods. These visits had the further advantage of bringing members of U.F.O.D. into closer co-operation with one another and facilitating their collaboration.

Other matters, already touched upon here, such as the question of bibliographies, the terminology of documentation, etc., were discussed and elaborated. A subcommittee devoted a large number of meetings to the drawing-up of rules for the alphabetical classification of names.

Great importance is being attached to the International Exhibition of Arts and Techniques, to be held in Paris in 1937, at which U.F.O.D. is arranging a display of documentation. It will endeavour to illustrate the services documentation can render and to emphasise the important part that a well-organised system of documentation could play in the intellectual and economic life of a country. At the same time a World Congress of Universal Documentation is being held in Paris from August 16th to 21st, U.F.O.D. taking a prominent part in its organisation. Each group and each organisation interested in this subject will be invited to co-operate, under conditions of absolute independence and autonomy. The object will be, at one and the same time, an enquiry into the existing state of affairs, a comparison of principles, programmes and methods, as well as the exchange of views on the various results obtained ; an attempt to establish a basic plan of work and of service, a general agreement to carry out the measures which have already been approved.

THE "BIBLIOTHEKSAUSSCHUSS" OF THE PRUSSIAN STATE LIBRARY, THE GERMAN-FOREIGN BOOK EXCHANGE, AND THE IMPERIAL BUREAU OF SCIENCE, EDUCATION AND POPULAR INSTRUCTION

Report from Fräulein Dr. von Busse. During the year 1935 the "Bibliotheksausschuss" of the Prussian State Library continued its work, though only in a somewhat limited capacity. However, a certain amount of literature from abroad was procured for the universities' and technical high schools libraries, though this only applied to foreign periodicals. The supply of separate parts had to be obtained by the libraries themselves.

The German-Foreign Book Exchange widened its sphere of activity considerably during the year 1935. By means of exchange it was found possible to secure valuable foreign material for distribution to German libraries. The number of foreign periodicals received has now reached 2,330, and the number of regular exchanges carried through has increased by about 200.

The Imperial Bureau of Science, Education and Popular Instruction reports on only one branch of its activity—namely, the duplicate exchange system, which has been particularly successful. By this means 52,982 volumes and 29,836 journals were obtained for different libraries, and through the Interlending Circle 6,438 volumes and 12,475 journals. Apart from the German libraries a number of foreign libraries also took part in this duplicate exchange system. The fact that about 6,500 journal volumes could be supplied to meet the requisitions of the participating libraries (a fact which may well strike most librarians) can be explained by stating that the stock of periodicals of two libraries which closed down was taken over by the Bureau.

TEKNISKA LITTERATURSÄLLSKAPET, SWEDEN.

Report from Dr. C. Björkbom. On January 15th, 1936, was founded at Stockholm the "Tekniska Litteratursällskapet" (Society for technical literature), whose aim is to bring the producers of technical literature (authors and editors of technical periodicals) in close touch with its distributors and consumers (librarians and students). It will arrange lectures and discussions about questions referring to the technical literature problems, such as nomenclature, reference work, classification and distribution of bibliographical information. It will also act as the appropriate Swedish association in the international work in this field. An investigation regarding the literary possibilities for technical work in Sweden (list of technical libraries, union lists of their stock, etc.) is one of the first points of the programme of the Society. It also plans the distribution of special technical bibliographical information, not to be found elsewhere and of special Swedish interest.

The Chairman is G. Borelius, professor at the Tekniska Högskolan, Stockholm; Secretary, C. Björkbom, sub-librarian at the Royal Library. The number of members is about 100.

THE NEDERLANDSCH INSTITUUT VOOR DOCUMENTATIE EN REGISTRATUUR.

Report by Mr. J. J. Roeloffs Valk, Director of the Institute. The "Nederlandsch Instituut voor Documentatie en Registratuur" is co-operating with the "Nederlandsch Instituut voor Efficiency" (Dutch Management Institute).

Publications:

(1) *Repertorium Technicum* (an international bi-monthly bibliography comprising yearly about 25,000 titles of books and of articles appearing in periodicals on technical and allied subjects). A further extension up to 35,000 titles has been seriously discussed and will be probably realised in the near future. Each bi-monthly issue will appear in three numbers, of which the third one contains a short alphabetical subject index. Each bibliographical notice will, if possible, include the classification number adopted from the universal decimal classification, the name of the author, the title of the article or book, its source of publication, and between brackets a reference to some journal in which an abstract of the publication is to be found.

(2) *Dutch Technical Bibliography* (appearing monthly in Dutch) in *Korte Mededeelingen,* the bulletin of the Dutch Management Institute. Copies, if desired, available.

(3) *Abbreviated Universal Decimal Classification in the Dutch Language.* Appeared in March, 1935, and is enjoying a favourable receipt in scientific centres.

(4) *Classificationis Decimalis : Supplementa et Correctiones.* Extensions and corrections of the Universal Decimal Classification as fixed by the International Committee on Decimal Classification from the period 1929–32.

(5) *I.I.D. Communicationes.* Communicationes of the I.I.D., appearing four times yearly. This bulletin tries to be an international " forum " for the study and the exchange of opinions on documentation matter. Articles are published in the English, French, and German languages. The Council of the I.I.D. recently decided that each number will be dedicated to a special subject. Free annexes : extensions and corrections of the Universal Decimal Classification as fixed by the International Committee on Dec. Cl. after 1932.

(6) *Union List of Scientific Periodicals.* The compilation of a list of periodicals available in public and in principal private libraries in The Hague is ready for use. Publication will take place in a short time, after which a similar list will be compiled for Amsterdam, Rotterdam, etc.

(7) *Netherlands Documentation Directory.* Printing of the Netherlands Documentation Directory (a repertorium of sources of bibliographic data) is in hand, and the first edition will appear at the end of the current year.

(8) *Annual Report* 1935 (in Dutch).

(9) *A.B.C. Rules* (in Dutch). Rules for the alphabetical classification were published in March, 1936.

Other Activities :

(1) The " Nederlandsch Instituut voor Efficiency " published a report about the Management Research Groups in May, 1936.

(2) *Information Service.* The Information Service concerning bibliographical data on a variety of subjects, but especially technical ones, was largely extended during the current year.

(3) *The Management Research Group for Documentation* (instituted by the " Nederlandsch Instituut voor Efficiency ") published a report containing general observations about filing and filing systems.

Index.

NOTE.—This is not a complete subject index to the contents of the papers, but only to the names of speakers and the titles of papers, etc. Copies of the twelve previous Reports can be obtained from the office of the Association.

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